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ORIGINAL ARTICLES.

ON EPISTAXIS AND ITS TREATMENT.

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It is my purpose to sum up in this article all the facts concerning epistaxis which are of value to the practicing physician.

If we wish to successfully deal with epistaxis it will be necessary, first of all, to understand its causes; and of these the acute infectious diseases, such as scarlet fever, measles, diphtheria, influenza, typhoid fever, etc., must be considered as being the most frequent.

Among the constitutional diseases which often lead to profuse bleeding from the nose are purpura hemorrhagica, scurvy, simple and pernicious anemias, leucemia, acute yellow atrophy of the liver (to which Bresgen calls attention), all diseases which go with icterus, nephritis, arterio-sclerosis, uric acid diathesis, diabetes mellitus and insipidus, cirrhosis of the liver, cardiac disease (especially aortic insufficiency), phthisis and syphilis (which will be dwelt on later).

Other causes are onanism, climacterium, pregnancy, cessation of the menses (in which case the bleeding may be vicarious), heredity, chronic alcoholism, tumors of the thyroid gland, mental and physical overexertion. Hemorrhages also occur as the result of certain occupations, as those requiring the handling of certain chemicals: for example, phosphorus, chlorine gases, lead and its combinations with acids, nitric acid, sulphuric acid, chromic acid, etc. The latter play a most important part in the production of nose-bleed, owing to their irritating and corrosive action on the mucous membrane, especially that of the septum. Frequently I have seen severe hemorrhages from the nose in glass workers, metal polishers, tinners, etc., which refused to yield to treatment until they had given up their occupation for a time, when most satisfactory results were obtained. This must especially be borne in mind in the case of chemists, as they are frequently exposed to gases which are odorless but at the same time very pernicious.

I may also mention that I have frequently observed a dry rhino-pharyngitis and laryngitis (similar to atrophic rhinitis) in patients who deal with alcoholic liquor. There is a rupture of the upper surface of the mucous membrane with hemorrhage. This condition would soon disappear when the patient would give up his occupation for a time. I trace this phenomena back to the drying qualities of the alcohol and hydroscopic action of the various fusel oils.

In all these cases the bleeding may be slight, quickly ceasing but frequently recurring, or it may be so severe that the life of the patient is endangered, and requires a vast amount of patience, quick action and presence of mind on the

part of the physician. Never should he rely on a hastily applied tampon, but should as soon as possible endeavor to ascertain the cause of the bleeding. With regard to this the following may be of service: It must be remembered that most of the hemorrhages from the nose occur from the mucous membrane of the septum when they are not from operations or some destructive process in the nose. In infectious diseases the bleeding may occur from the whole surface of the nasal mucous membrane, and also the naso-pharynx, but the mucous membrane on both sides of the septum is the most vascular and is the most frequent site of the homorrhage. Neoplasms, malignant as well as benign (the latter through a tearing of the vessels on the outer surface), can be overlooked and give rise to confusion, but in most cases the physician, by means of anterior rhinoscopy, can detach the bleeding points. Here it is well to note that several large, often dilated veins, are almost always seen on both sides of the cartilaginous septum, the anterior part, especially in constitutional anomalies, such as arterio-sclerosis, cardiac disease, plethora, etc. Less often but frequently the source of hemorrhages are telangiectasis on the posterior and inferior part of the cartilaginous septum, especially when ridges and spurs are present. In this case these vessels are prone to all sorts of insults, as forceful sneezing and blowing, picking and boring in the nose with finger-nails, etc. It is also at this point that the secretions dry and form crusts, which become adherent, and when torn loose the mucous membrane becomes eroded. It is easy to understand that with such anatomical conditions present, and an additional severe constitutional trouble, a hemorrhage from these parts can easily be produced.

We are also aware of the fact that most of our fellow-men suffer from a more or less developed chronic rhinitis, and as a result there is frequent formations of crusts in the nose and a congestion of the mucous membrane. Considering, for instance, the frequent occurrence of ozena and ozena luetica, with the frequent and repeated formation of crusts at the above mentioned points, and their forceful removal, we can easily understand their resulting in excoriations and eczemas. This I have also observed in tuberculosis.

The presence of adenoids, polyps, hypertrophies of the turbinates and mucous membrane of the septum must be considered as fruitful sources of hemorrhages. We know that the adenoid vegetations cause a constant congestion of the nasal mucous membrane and a hypersecretion resulting in the formation of crusts and eczemas, at the anterior nares and anterior part of the septum, thus opening up an avenue for infection. Hence it is that we frequently have recurrent attacks of erysipelas in this location. The veins are in a constantly distended condition as in every condition that goes with fever. It is for this reason that epistaxis is so frequently seen in children. Older people are also subject to chronic eczema of the nasal inlet, resulting frequently from suppuration of the accessory cavities of the nose.

Epistaxis may also be caused by excoriations on the anterior part of the septum (especially when deviations are present) which are the result of traumatisms, but no attention is paid to them until hemorrhage takes place. In such cases a tampon which is carelessly applied and removed too early will do more harm than good. A clear view of the nasal cavities should be obtained and the bleeding points sought out and properly dealt with. Other conditions make a careful examination of the nose imperative as we know that new growths, such as sarcomata, carcinomata and papillomata are not uncommon, and frequently

give rise to profuse hemorrhages from the nose. A tampon will control the hemorrhage, but for how long a time?

We have frequently seen profuse hemorrhages from tubercular and syphilitic ulcerations, especially on the septum, which were controlled by tamponing, but on removal of the same the bleeding would set in again. One case in particular I recall in which the anterior and posterior nares had been repeatedly tamponed, but as soon as the tampons were removed the bleeding would start in again as profuse as ever. When I saw him the patient was very anemic. An examination revealed an ulceration on the septum in the region of the tuberculum septi, which proved to be syphilitic. The ulcer was cauterized with nitrate of silver in substance. Potassium iodide was given internally and in three weeks the ulcer was healed and there were no further hemorrhages. Tubercular ulcerations also bleed very easily. They are best treated by cauterization with lactic acid.

Another form of ulceration occurs on the septum which must not be omitted—that is, the simple perforating ulcer resulting from the formation of crusts and removing them with the finger-nails, producing a perforation in the anterior part of the septum. These seemingly unimportant traumas cause an inflammation which extends deeper and deeper, and as a result there is a necrosis of the cartilage, with a peculiar coloring of the part which Zuckerhandel calls "xanthosis." It is only with difficulty that this process and the accompanying hemorrhages can be controlled. The perforation increases in size and the hemorrhages reappear in proportion with the development of the necrosis. The process is, however, painless, the patients being unconscious of their nasal ulcer.

Foreign bodies in the nose frequently cause hemorrhages, as in the case of children and in the lower classes; also the bites of insects, as mosquitoes, ticks, etc., and the unskillful application of leeches. The latter have also been found in the nasal cavities of boys who had been bathing in ponds.

I do not deem it necessary to specially explain that hemorrhages from the nose occur in fractures of the skull and in traumas inflicted directly to the nose. In such cases the properly applied tampon will answer best.

We shall now deal with the treatment of epistaxis, and first of all will take up the tampon, for it is the general practitioner who will resort to it most often. It must be remembered in applying a tampon that the position of the patient's head must be taken into account. It is usually inclined backward, and often the probe with the tampon material is pushed into the nose in a horizontal plane, thus striking the middle turbinate, resulting in an incomplete packing of the nasal cavity, and thereby allowing the blood to flow back into the posterior nares. We do not take a long, thin strip of gauze and successively pack it into the nasal cavity until the same is filled, and the free end possibly forced into the naso-pharynx, causing retching, vomiting, and even entering the larynx and causing asphyxia, as in a case I once saw.

If we wish to tampon the nose simply and securely through the anterior nares (which can be done), we take four or five folds of gauze, according to the lumen of the nasal cavity, and cut into strips about one inch and a quarter wide by six to ten inches long, and by means of a long, narrow forceps carry the one end back through the inferior meatus to the choanæ, and then pack the upper portion against the middle turbinate, if possible into the middle meatus, thus securely packing the nose. This tampon cannot fall out and will, in most cases, have the desired result. I have never had occasion to resort to the Belloc

tampon. Douglass, of Brooklyn, showed me some tampons which he uses. They are made of cotton which has been subjected to hydraulic pressure, cut into triangular shape, and covered with gauze. When applied the cotton begins to swell and exerts pressure in all directions, thereby gradually but securely packing the nasal cavities. I consider them very practical.

Should it become necessary to pack the posterior nares, it can be best accomplished by means of the well-known method of Belloc. A soft rubber catheter can be used instead of the probe. It should never be forgotten that when the tampon is applied, one should never fail to make a digital examination to see if the tampon is in proper position. The strings with which the tampon is drawn into the posterior nares should both be pulled through the nose and tied over a plug of cotton packed into the anterior nares, and not left in the mouth, as they are very disagreeable and annoying for the patient. However, even with those who are less experienced with the rhinoscope, it will not always be necessary to resort to the tampon in epistaxis. Under the above mentioned cases, when the hemorrhages were due to excoriations, eczemas, ulcers, telangiectases on the septum, the destruction of the vessels or ulcerations with some cauterizing chemical or galvano-cautery can be easily accomplished, and the hemorrhage stopped without any pain or inconvenience for the patient, which is not the case when the tampon is used.

The cauterizing agents employed are chromic acid, nitric acid, trichloracetic acid and silver nitrate. If nitric acid be employed it must be used with great care, owing to its intense action and the severe pain which may follow its use. Chromic acid can be applied much easier. It is best used by fusing a small bead on a probe (the bead must be red, not green). After cocainizing the part the application is made, followed by an application of a weak soda solution. However, the general practitioner had better make use of a less energetic agent, such as nitrate of silver, which is also best applied by fusing a bead on a probe. The action of nitrate of silver as a cauterant is only a very superficial one, but will answer in most cases. After the part has been cauterized, the after-treatment is a very important factor. In order to avoid the formation of crusts at the point of cauterization, some oily or fatty substance must frequently be used. If this is not carefully carried out until the wound has healed, crusts will form and become adherent, and when removed by blowing the nose, as is usually the case, the bleeding will set up again and our efforts will be of no avail. Frequent applications of vaseline on cotton will answer very well. The electro-cautery can be applied in case the above measures fail, but a red heat only should be used. If possible, the patient should remain quiet for a time.

As tampons, iodoform, dermatol, orthoform, sterile or xeroform gauze can be used, also the Penghawar-Djambi cotton recommended by Noltenius is very satisfactory. M. Schmidt condemns the chloride of iron cotton, on the ground that nasal secretions make it slippery, and therefore will not remain in place.

Every tampon, owing to the congestion of the mucous membrane of the eustachian tube and possible middle ear infection, should not remain in place longer than three days.

Solutions of ferri sesqui chlorati, tannin, ferripyrin (the latter in from 10 to 20 per cent. solutions) can be recommended. Adrenaline, 1-1000 to 1-10000, is of great service, applied locally and administered internally. When the patient is very nervous and excited, a hypodermic injection of morphine or mor-

phine with ergotin will often tide the patient over until other means can be used.

In dyscrasias, owing to the lack of clotting power in the blood, the above measures may be of but little service. In such cases we can administer ergotin, morphine, gelatine injections, transfusions of saline solutions, etc. That one must resort to tampons and general medication, as iron, quinine, arsenic, etc., is self-evident.

After successfully controlling a hemorrhage, it will be necessary to examine the patient for some constitutional trouble, as syphilis, nephritis, cardiac disease, etc. The patient should never be let alone until one is certain that the bleeding is checked and not flowing down into the posterior nares, as is often the case. It will be necessary to caution the patient as to his mode of living, and if any constitutional trouble is present it should receive proper attention. He should be warned about blowing the nose too hard, and especially cautioned as to snuffing up water into the nose.

In conclusion, will add that the possibility of the blood coming from the stomach or lungs should not be forgotten when obtaining the history.

THE X-RAY AS A THERAPEUTIC AGENT—CLASSIFIED REPORT OF FORTY-THREE CASES.

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Last winter my attention was called by various articles in medical journals to the X-ray as a therapeutic agent, and especially as used in cases interesting the dermatologist. Desiring to see for myself the action of this addendum to our curative measures, I visited Dr. W. A. Pusey, who had for several years used it in his work. The results in some of his cases were so happy and the improvement in others so marked that I decided to use it in my dermatological work. Under his supervision I purchased an instrument, and later a second one, and since then have been using the ray in cases in which I thought it indicated and in some in which I did not think it at the time advisable. I shall not attempt to enter fully into the history of the forty-three cases I here report, as it would make an article unnecessarily lengthy, but will simply classify my work, give results and such other data as I may think the profession at large would like to know. With a few exceptions the patients have been sent me by medical men—men of pronounced ability, whose diagnoses would usually be accepted by the profession. I have in most cases accepted their diagnosis. When it has been possible a microscopic examination has been made, but while that would be most desired, it is impossible in many cases, for the simple reason that patients will not often submit to cutting a piece of tissue from an unbroken surface for an examination. The reader may be skeptical as to the correctness of the diagnosis in all these cases, and the above statement is all the satisfaction to that dilemma I can give.

I have kept a correct record of all my cases, including not only a history, and when convenient, a photograph of them, but the number and length of time of exposures, the distance the tube was held from the part, the character of the tubes used, etc. With this data most any case I have had would furnish suffi-

cient material for a journal article, and in this report of forty-three cases I cannot be expected to enter fully into a detailed description of each one or to even give some points I would desire much to amplify.

Since February 28, 1902, I have treated by the X-ray in private practice a comparatively large number of cases, and the first forty-three have been under observation a sufficient time to warrant me in forming some idea as to the virtue of this agent. For brevity and clearness I have arranged them as follows:

1. *Epithelioma of Lower Lip; Two Cases; Men.*—In one case the lesion was confined to the vermillion border; ulcerated, with induration; lesion about one-third of an inch in largest diameter. Thirty-five exposures were given, from May 12th to July 8th, at which time patient went home. Result, pain ceased, ulcer completely healed and indurated border almost disappeared. Patient promised to return if necessary, but he has not done so.

In the other case the lesion was very extensive, involving not only the vermillion border, but the integument proper of the lip, with marked induration. Fifty-five treatments were given, from April 23d to August 20th, with very unsatisfactory results. On August 20th, with the consent of his nephew, who is a prominent physician of this city, I commenced a series of exposures with the intention of producing a severe burn. I succeeded after four sittings, and the patient is now absent from the city awaiting the result of the burn. About a month after he went home I learned from the physician who is attending him, that "the X-ray has entirely done what would have been necessary for the surgeon's knife to have done; the sloughing of the diseased tissue has apparently been complete . . . the process of healing is almost complete." I might state that both these men were great tobacco smokers. The one that progressed favorably quit it during treatment. The one that did not respond to the X-ray readily would not quit, but used it to excess.

2. *Epithelioma of the Face; Nine Cases.*—Locations as follows:

(*a*) Superior maxillary region—Healed and discharged.
(*b*) Bridge of nose—Healed and discharged.
(*c*) Lower eyelid—Ulcer healed; induration reduced.
(*d*) Left zygmatic region—Ulcer healed.
(*e*) Left ala nasi—Much improved.
(*f*) Left ala nasi—Improved, but still under treatment.
(*g*) Superior maxillary region—Healed and discharged.
(*h*) End of nose—Healed and discharged.
(*i*) End of nose—Healed and discharged.

These cases, with the exception of *a*, were superficial epitheliomas. I used the medium soft tube, with from two to three amperes, exposure lasting from five to ten minutes, and tube held from three to six inches from the parts. In case *a* it was necessary to produce a slough and then healing was perfect. The number of treatments in these cases varied. The shortest number was twelve in case *c*, and the greatest number was sixty-eight in case *f*. These two are still under treatment. Case *a* I feel satisfied will be a success, but in case *f* the left ala nasi is completely destroyed, exposing the septum, and improvement is not satisfactory.

3. *Cancer of the Breast; Five Cases.*—In four of these cases an operation had not been performed, but hard, painful tumors existed. In one case the breast was removed, in 1900, and the cancer recurred in about fourteen months as an

ulceration and disseminated infiltration. In all these cases except one there was marked pain, and in three of them the arm was swollen and painful. The ulcer in the case which had been operated on healed in about three weeks and the tumors in the others diminished satisfactorily. I would like to state here a peculiar fact noticed in almost every case of cancer and in some cases of sarcoma in any locality where local improvement occurred and great pain was experienced, viz., that after a few weeks' treatment the patients would invariably ask if the treatment had any effect on the general health, and when the answer "no" was given, would remark that they felt better than they had for a long time. I have thought that might be due to the relief of pain.

An old lady, seventy-seven years old, with cancer of the breast, the mother of a prominent St. Louis surgeon, whose case progressed most favorably, gained twenty and a half pounds in a short time. I used the medium hard tube in these cases, except that in healing the ulcer, in the case which had been operated on, I used the medium soft tube. The results in four breast cases have been most satisfactory. The fifth one has only been under treatment a comparatively short time, but is progressing favorably.

4. *Sarcoma; Five Cases.*

(*a*) Osteo-sarcoma of lower jaw.

(*b*) Osteo-sarcoma of lower jaw.

(*c*) Small-cell sarcoma of neck.

(*d*) Small-cell sarcoma of neck.

(*e*) Myxo-sarcoma of hand.

(*a*) In case *a* an operation had been performed some months before visiting me. Tumor returned; maxillary articulation was involved, so much so that patient opens mouth with difficulty; pain great. Thirteen treatments given, from April 22d to May 12th. No perceptible benefit either in diminishing pain or reducing size of tumor. Patient discouraged and quit treatment.

(*b*) Patient had been previously operated on. Tumor returned; inside of mouth was involved. Twenty-five X-ray exposures given, from May 25th to June 23d. No good effect, not even positive relief of pain, though mitigated. Patient quit the treatment and writes me from Texas that he is failing rapidly.

(*c*) Patient operated on. Tumor returned. Thirteen exposures given, from April 4th to 24th. No good effect, but tumor rather increased in size. Tumor was then removed by the surgeon referring him to me, on account of pain, increasing size of tumor, and pressure interfering with circulation. The wound was not closed by the surgeon, but was healed by the X-ray in ten exposures. Another tumor later was removed from same patient and wound healed by the ray.

(*d*) Operated on about two years ago and large tumor removed. Tumor returned; large and very painful. Eleven treatments, from August 12th to 25th. Tumor diminished in size and pain not so great. I had some hopes of success in this case, but patient lived at a distance, became discouraged and quit the treatment. Since operated on and died.

(*e*) This is one of my "brag" cases. The microscopist pronounced it myxo-sarcoma. Young lady, twenty-one years old, was operated on November, 1901, and March, 1902. Wound failed to heal and amputation was considered. The surgeon asked me to try the X-ray. Pain ceased in a few treatments, and

after sixteen exposures healing was perfect. Six months have elapsed since healing and it looks well at this time.

I have no doubt some of my dermatological friends will think had I persevered in the treatment of the above sarcoma reported as not benefited that the results might have been different. This may be true, but the general condition of each one was so much below par and the involvement of structures, superficial and deep, so extensive, and the improvement *nil*, that I could give them no encouragement to continue treatment or assure them of a permanent benefit, and they quit. I believe myself, however, that treatment should have been continued, for we know that sometimes the good effects are not manifested for weeks after treatment is inaugurated.

5. *Lupus Vulgaris; Two Cases.*

(*a*) Forehead.

(*b*) Forehead.

(*a*) Sixteen treatments, from May 22d to June 26th. Ulcerated lesions healed and tubercles broken down and healed. Saw patient August 9th, and still healed.

(*b*) Patient sent me by a dermatological colleague who desired to watch the effect of treatment. Commenced treatment August 25th. A little early for a final report, but the lesions are disappearing rapidly, and I am satisfied it will be a success.

6. *Cancer in the Mouth (Not Tongue); Two Cases.*—Both cases in men: one about seventy-five years old and the other fifty-six. Destruction of tissue very extensive, especially in back part of mouth; marked cachexia; pain great, and very offensive odor in one case. Nineteen treatments given in one case, from April 4th to May 9th, with no benefit. Patient quit treatment and died July 22d, 1902. In the other case twenty-four treatments were given, from April 29th to May 21st. No improvement; in fact, rapidly grew worse. Quit treatment May 31st, and died in August.

7. *Epithelioma on the Neck; Two Cases.*

(*a*) Open ulcer on side of neck.

(*b*) Tumor near angle of jaw.

Case *a* has been treated sixteen times, and the ulcer is rapidly healing. I have no hesitancy in predicting that it will be healed perfectly.

Case *b*.—This lady had a cancer of the tonsil removed by a throat specialist and surgeon, and some time afterwards an enlargement, hard and painful, appeared near angle of jaw, on the same side as the operation. It was diagnosed, a cancerous gland and sent to me for X-ray treatment. Seventeen exposures were given, from June 17th to July 28th. Pain ceased, enlargement disappeared and patient feels well.

8. *Cancer in Axilla; One Case.*—Arm much swollen and painful; tumors very hard, and attached to bony structure. Thirty treatments, from June 30th to August 28th. Arm less swollen, pain of no consequence, and tumor much reduced in size. At this time the tumor is not diminishing rapidly, and I am seriously considering the advisability of having the surgeon who sent her to me remove the remnant of the tumors, and then heal with the ray. I believe the recovery would be more rapid and the operation now would be insignificant.

9. *Epithelioma of the External Ear; One Case.*—A physician from Southeastern Missouri; lesions confined to concha and anti-helix, external canal not in-

volved. Fifteen treatments, from July 1st to August 25th; much improved; in fact, practically healed. Owing to irregularity of external ear, it is difficult to concentrate rays exactly on parts desired.

10. *Cancer of Larynx; One Case.*—Twenty-three treatments, from June 30th to August 25th. The laryngologist informs me that the tumor has not diminished in size, but rather increased, and ulcerated. Patient says he feels better, and swallowing is less painful after each exposure, but I think that is only temporary, and has an element of hope in it.

11. *Melano-Carcinoma of the Back; One Case.*—A microscopical examination was made in this case before treatment was commenced by an experienced examiner. Thirty-two exposures, from April 8th to May 29th: at that time the improvement was so marked that I only saw patient once in ten days or two weeks. I saw the patient last on June 30th, and his not returning at the appointed time after that, made me suspicious that he was not doing well. I learned he was sick with some stomach and liver trouble. He died August 23d, nearly two months after I last saw him; and one of the attending physicians, who is a well-known microscopist, told me that he died of melanoma of the liver and spleen. I am satisfied he died of the same condition of the internal organs that he had on his integument.

12. *Rodent Ulcer; One Case.*—This patient was referred to me by a dermatological colleague, who at that time had not an X-ray instrument. The destruction of tissue in this case was very extensive. On almost the entire one side of his face the soft tissues were destroyed, exposing the organs in the mouth cavity. Much emaciation, edema of feet, great pain and offensive odor. He was taking fifteen grains of morphine daily to relieve pain. My colleague and I felt that a permanent recovery was impossible, and so told the friends. I treated him thirteen times, from March 6th to 24th. The pain became much less, odor disappeared and granulations appeared. I then returned him to my colleague, who had gotten an instrument, and the local lesions under his care continued to improve, but the man's general condition was such that he was advisd to give up the treatment. I might say I never saw the ray act more favorably, and had his general condition been better, some hope might have been entertained for his greater improvement.

13. *Lupus Erythematosus; One Case.*—On side of nose and cheeks. She was treated twenty-two times, from March 7th to May 14th, with great improvement; in fact, lesions disappeared. She then went to New York City for a month, and on her return the parts were still in good condition. As this disease acts oftentimes the same way with other appropriate treatments, I shall see her occasionally, to satisfy myself as to the permanency of the cure.

14. *Tubercular Gland on Neck; One Case.*—Patient sent me by a dermatologist; diagnosis in doubt, but suspecting sarcoma. After seven treatments, with no benefit, I returned him to the dermatologist, who continued use of ray with no improvement. He was then operated on, and a microscopical examination showed it to be not sarcoma, but tubercular.

15. *Cancer of Penis; One Case.*—Man, seventy-seven years old. Penis entirely destroyed; gland in left groin veryl arge and pain intense; odor very offensive. No evidence of penis, except a large granulating mass, through which urine dribbled. Gave him seventy-eight treatments, from April 16th to August 19th; the first six weeks the case progressed favorably; less pain and odor and granu-

lating mass reduced two-thirds in size. After that, treatment seemed to have no good effect, and he was discharged as incurable August 19th. He is now very weak and failing rapidly.

16. *Cancer of Right Side of Nose and Orbit; One Case.*—Tissues of right side of nose and inner half of right orbit destroyed, crowding eye upward and outward, which is almost completely encased by remnant of eyelids growing together. This lady commenced treatment August 14th, and has had eighteen exposures: it is too early for a final report, and while I do not anticipate a permanent recovery, still even in this case, which is inoperable, the pain and odor have disappeared, the disease has not progressed, and the tissues have a healthier appearance. I am fearful the disease is also intracranial.

17. *Eczema of Popliteal Space; One Case.*—Erythemato-squamous lesion confined to right popliteal space. I had treated this patient for six months, before commencing the use of the X-ray, as these cases are usually treated by dermatologists, with varied results, but never a complete amelioration of symptoms. Noticing a few reports of chronic, localized, infiltrated eczemas cured by the ray, I applied it to this case. She had seventeen treatments, from May 22d to August 21st. After six or seven treatments the itching became much less, the infiltration began to diminish, and the part to all appearances improved. The good effects subjectively and objectively continued with each treatment, and for a long time I saw her only once a week. I have now discharged her, but she has promised to visit me once a month, as I desire to see whether the cure is permanent or not.

In this case I produced a mild dermatitis.

I do not wish the reader to understand for a moment that I recommend the X-ray in the treatment of eczema, but it may be that it is useful in a thickened, infiltrated, localized patch.

18. *Hypertrichosis; One Case.*—I have had a number of opportunities of using the ray in removing hairs from the face, but I have declined them all until I could for myself see (1) if it would remove them; (2) if removed would they return; (3) is the dermatitis produced sufficient to leave the part permanently pigmented or erythematous. If the treatment is successful as regards the first two points, and the third exists after their removal, I do not care to use it for that purpose on the face.

Fortunately, I had a most appropriate case for my investigation. A lady from whom I had removed a growth of hair from the face several years ago by electrolysis, noticing that the X-ray was being used for that purpose, consulted me about removing them from her legs. I must say that the growth of hair from the knees to ankles was most abundant. I explained the newness of the treatment, the uncertainty of the results, and the possible permanent pigmentation, and she decided to be treated, which pleased me very much, as I here had a case in which a failure or subsequent pigmentation was of little consequence. I used a medium soft tube, held it about three inches from the part with five minutes' exposure to each region treated, treating only the tibial portion of the legs. After fourteen exposures I noticed a folliculitis, and after twenty treatments a marked diffused dermatitis over all the parts exposed. Treatment then ceased. Three weeks thereafter the dermatitis had disappeared, and all the hairs over the region treated had fallen out, leaving some slight pigmentation; this latter, however, faded gradually and legs now are about their natural color. Eight weeks have

elapsed since the hairs disappeared and there is no evidence of new hairs growing. I am now treating other regions of the legs, but not so vigorously, and will see if I cannot succeed in removing the balance of the hairs without producing the marked dermatitis that I did at first.

19. *Acne; One Case.*—I was consulted by a young man with acne on his back; very pronounced. I tried to dissuade him from having it treated at all, but he and his father insisted on something being done. I had never used the ray on my acne patients, but as I had noticed where a number of cases had been cured by this method, I felt here was a favorable case for my first experience before using it on the face. I attempted to produce a mild dermatitis, which I succeeded in doing after fourteen exposures. Treatment then ceased and he went north on a fishing trip; returned in three weeks; dermatitis gone; no papules or pustules on parts treated, but *marked* pigmentation. He then went on a trip to Canada and returned in about a month, at which time papules and pustules had not reappeared and pigmentation *very slight*, hardly noticeable.

As in eczema, let me say I am not recommending this treatment in acne, for our idea of its etiology is such, and especially knowing that systemic derangements influence its course, I cannot understand how this treatment would produce permanent, good results, though they might be temporary. The young man has promised to occasionally let me know how he is getting along.

In addition to the above cases, which come naturally under the care of the dermatologist, I was prevailed upon early in my X-ray work by brother practitioners to accept four cases of cancers of internal organs. Such cases are outside the domain of the dermatologist, and I did not want them, but as the treatment is comparatively new, and the profession desired to see the effect on such cases, I acceded to their request.

20. *Cancer of Stomach; Two Cases.*—Ladies, each about fifty-seven years old; tumors easily detected; hard, and pain great; much emaciation; cancerous cachexia. One patient was treated forty-three times, from May 12th to July 14th. At first there seemed to be some mitigation of pain, general condition improved, and tumors lessened in size. However, after first month's treatment improvement in every respect ceased and patient gradually grew worse and quit treatment. Since died.

The other patient was so weak and emaciated that she with difficulty came to the office even with two persons to assist her. I declined to treat her, but the attending physician and her husband insisted on a trial of the X-ray. She had eight treatments, with no benefit whatever, rapidly grew worse in every way, and I finally succeeded in persuading her husband not to continue the visits. Since died.

21. *Cancer of Uterus; Two Cases.*—In one the body of the womb and appendages were involved; much emaciation and pain. Surgeon refused to operate. Twelve treatments through abdominal wall, from June 21st to July 12th. No improvement; gradually grew worse and quit treatment. Since died.

In the other case the lesion was confined to the os and neck of the womb. Woman fairly well nourished, and a most typical case for a radical operation, but I could not get her to let the surgeon operate. I treated her per vaginam. When she commenced treatment there was great pain, parts bled easily, introduction of speculum painful, and introduction of probe followed by a rather copious flow of blood. She was treated twenty-eight times, from June 17th to

August 15th. After two weeks' exposure she showed marked signs of improvement in her general condition, also in absence of pain and discharge. Improvement continued with each treatment and August 1st she went home. She now returns once a week. The local lesion to all appearances healed, no pain, no discharge, introduction of speculum painless, and no blood on introduction of probe. This lady lives in the interior of the state, and while I feel the treatment has been most beneficial in every way, I would like to see it continued occasionally indefinitely, as it would be of great interest to the gynecologist.

A careful examination of the above cases will show that of the forty-three cases, twenty have been discharged healed, and to all appearances cured; eight have shown marked improvement—in fact, so much so that six of them can be discharged cured in a short time, and I have hopes for one of the remaining two; fifteen have failed to show any permanent improvement and have quit the treatment at my suggestion or with my approval, and to my knowledge seven of the fifteen have died since treatment was suspended. The percentage of successes could have been much increased had I been permitted to exercise my judgment and inclination and refused to treat at least ten of the fifteen that I have reported as not benefited at all; three of the ten were cancers of internal organs. However, at the earnest solicitation of the friends of those ten, and of the medical attendants, I treated them as a last resort. I guess this course was justifiable, as we do not know as yet exactly all the conditions in which it is applicable. We are, however, slowly learning to discriminate, and after awhile the therapeutic use of the ray will be limited to its proper sphere.

From my experience in radiotherapy I am convinced—

(1) That while it is not a panacea, and will not relieve all cases of any *one* kind of lesions, its value as a therapeutic agent is unmistakable, and most valuable when properly used.

(2) That the sooner the disease is treated after it makes its appearance the more success we may expect.

(3) That those scientifically using the treatment should refuse to take patients even when they have every reason to believe they would be benefited, unless the patient can agree to be with the operator at least three or four weeks, for while improvement often is manifested after a few treatments, sometimes it does not show itself for several weeks.

(4) That it is often palliative in inoperable cases and rids the patient, if only temporarily, of great pain.

(5) That after an operation for a malignant growth the healing of the wound by the X-ray is beneficial, in that diseased tissue which probably may have escaped the knife is destroyed by the ray during the healing process.

(6) That the operator must especially understand his tubes and not indiscriminately use tubes of great and slight resistance.

(7) That sufficient time has not elapsed for us to say that the lesions will or will not return; but suppose they should return in six or twelve months or a longer time, is it not easy for the patient to undergo the same treatment, and probably get the same relief? Thus far, however, I may say that relapses have been very rare with those who have used the treatment longer than I have.

(8) That in superficial epithelioma, lupus of both forms, especially vulgaris, cancer of the breast, and sarcomas of some forms (not osteo), the ray is very beneficial, and in the great majority of cases curative.

(9) That in the treatment of cancers of internal organs judgment must be suspended until further experience and perfection of the apparatus.

Century building.

PLEURISY AS ASSOCIATED WITH TUBERCULOSIS.

By John Hunter, M. D., of Toronto, Canada.

In the medical literature of pulmonary diseases, for decades before the discovery of the tubercle bacillus, there are to be found many evidences, if not of an assured faith, at least of a strong suspicion, that there exists a special relationship between pleurisy and tuberculosis—the latter being an exciting or predisposing cause of the former. Clinical experience and pathological research were too strong to allow the very frequent association of these diseases to pass as a mere coincidence.

The discovery of the tubercle bacillus in 1882 gave to bacteriology the mission of establishing the true relationship that exists between these diseases, and the years that have intervened since then have been utilized for this purpose. Three lines of investigation have been systematically followed: (1) *Microscopical examination* of the exudate in pleurisy—bacilli have been found in the exudate as well as in cultures made from it. It is true that the serous exudate is often sterile, even in cases of assured tuberculosis; but this fact in itself is now looked upon as being suspicious of a tuberculous origin, since numerous bacteria are to be found in the exudate of pleurisy due to cold, traumatism or other non-tubercular causes. The bacilli are to be found not only when the exudate is serous, but also when it is fibrinous or purulent. (2) *Inoculations.*—The results obtained by this test—when a fairly large quantity of the exudate has been injected—have been of the most positive character. Experiments on guinea-pigs have given results such as the following: Where a tuberculous exudate was used, fifty per cent. of positive results were obtained. In cases where the pleurisy was attributed to cold, forty per cent. of the animals became tuberculous. In cases where the pleurisy was evidently due to other causes, *e. g.*, traumatism, pneumonia, etc., the results were negative. In one experiment the inoculations were made from fifty-five cases of pleurisy, and eighty-five per cent. of the animals developed tuberculosis. In fifteen cases of pleurisy in which the tuberculin test was used, eighty-seven per cent. of these gave the general and local reaction. (3) *Clinical Evidence.*—Here, also, the evidence that a very large percentage of the cases of pleurisy are of tubercular origin seems indisputable. In recent text-books on the practice of medicine and in medical journals series of cases have been published, such as these: In fifty-seven cases of pleurisy, twenty-one died of tuberculosis within ten years. In one hundred and thirty cases of primary pleurisy, forty per cent. became tuberculous within seven years. In ninety-two cases of pleurisy, twenty-three died of tuberculosis within two years; forty-three had either definite tuberculous disease of the lungs or signs suggestive of it, and only twenty-one appeared to be healthy. In a collection of three hundred and ten cases of pleurisy, one hundred and seventy-eight, or fifty-seven per cent., subsequently developed tuberculosis. In sixteen cases of fatal pleurisy, in which the subjects were healthy before the attack, on *post-mortem* examination miliary tubercle were found on the pleura in every case. Coming now to personal experience, I am sure I can safely state that every physician, who has had a number of years in practice, can recall to recollection many cases of primary pleurisy that were soon followed by tuberculosis. How often have we sent away our pleuritic patients with a benediction and an assurance of their complete re-

covery, only to have them return to us a few months later the victims of tuberculosis and the dupes of a misleading prognosis. If we take all these facts into consideration, are we not fully justified in stating that far more than fifty per cent. of all cases of pleurisy with effusion are due to infection by the tubercle bacillus? The conclusion has been arrived at from the writings of such authors as I have been able to consult, from opinions expressed by many of my confreres in Toronto, as well as from personal experience extending over more than a quarter of a century.

Clinical Features.

1. *Primary Tubercular Infection.*—There is often a marked contrast between the physical type of those cases in which the pleura is first invaded by the bacilli and those when the first manifestations of tuberculosis appear in the pulmonary tissues, the former often presenting the highest type of physical development, whilst the latter are usually wanting in physical stamina. It is quite a common experience, when called to attend a healthy looking young man or woman, to find symptoms that at once direct attention to the pleura as the seat of the disease. These symptoms may be briefly summarized as follows: The sudden onset of acute pain, which is most frequently located in mid-axilla or mammary region; a short, hacking cough that greatly intensifies the pain; shallow respirations, increased somewhat in frequency; an elevation of temperature from one to three degrees. This febrile disturbance affects the vascular and digestive functions Within a few hours, or in some cases at a longer interval, a serous, or more frequently a sero-fibrinous, exudate is poured out into the pleural cavity. The exudate, if serous, may be so limited in quantity as to merely moisten the surfaces of the pleura, or to form a thin layer, if fibrinous, and thus cause the pleural surfaces to adhere together throughout or in patches. In other cases the exudate, especially when serous, is poured out rapidly and in such vast quantities as to expand the thoracic walls, compress the lung into a small, compact, airless mass, and displace the heart. The exudate may contain the following constituents: serum, fibrin, pus, blood, and the various micro-organisms and their products.

The seat of the most acute pain may be very misleading, owing to the nerve supply of the lower portion of the chest extending over the upper part of the abdomen. Many patients have been treated for stomach or liver trouble, when the pleura was the actual seat of disease.

The respiratory and cardiac distress is often extreme when the amount of effusion is very great.

Another interesting feature, especially characteristic of the tubercular cases, is the rapidity with which the pleural cavity refills after the fluid has been removed. In twenty-four, forty-eight or seventy-two hours the dullness may be about as extensive, and all the other symptoms about as well marked as before the removal of the fluid.

The further progress of these acute cases is largely governed by the quantity and character of the exudate. If fibrinous bands have been thrown across from the parietal to the visceral surfaces of the pleura the exudate may be contained in a series of small cavities. If the exudate become purulent the pus may remain encysted, or it may be discharged through the thoracic walls, or into a bronchus, or into the peritoneal cavity. If serous or hemorrhagic, it may be completely or partially absorbed. If fibrinous, the pleural surfaces become

adherent. Whilst these changes are going on a very large percentage of these acute cases become affected with pulmonary tuberculosis.

When death takes place during the acute stage it is usually due to either the extreme compression of the lungs or displacement of the heart by the exudate. Other causes of death are exhaustion and septic poisoning from the absorption of the morbid products formed in the exudate by the action of certain bacteria.

2. *Secondary Tubercular Infection.*—Pleurisy is simply a complication of pulmonary tuberculosis in quite a large percentage of the cases ordinarily met with in general practice. In a much smaller percentage of cases the pleurisy is due to tubercular infection in the cervical, lymphatic glands, peritoneal cavity, or elsewhere in the body. In these tubercular subjects the onset of pleurisy as a complication usually intensifies the symptoms present. The pain is more acute and persistent. The patient often complains of "my side being always sore." Cough becomes more irritating and painful, respirations more shallow and frequent, emaciation, exhaustion and mental depression more marked. The temperature, especially if the exudate becomes purulent, assumes the hectic type. The dullness becomes more absolute, the dyspnea and cardiac distress increase with the amount of effusion. When the exudate is sero-fibrinous and sterile, and only in sufficient quantity to exert some pressure, thus restricting the expansion of the lung in which the bacilli have set up inflammatory action, the result may be very beneficial, as in this way rest is afforded to the inflamed lung tissues.

Etiology.—The bacilli or their products can reach the visceral layer of the pleura through the subpleural, bronchial or tracheal lymphatic glands, and the parietal layer, from the cervical, vertebral, mediastinal and peritoneal lymphatics. The tonsils and other glandular structures in the mouth and throat can lodge the bacilli and transfer them into the lymph channels. The pleura can be very readily infected from a tuberculous lung. Traumatism may render the pleural tissues much more vulnerable to tubercular infection. In brief, any causes that impair health may be more or less potent etiological factors in predisposing to tubercular pleurisy.

Diagnosis.—The personal experience of all the members of the profession who may read this paper, the ready access to the very full descriptions of the symptoms and physical signs of pleurisy given in the text-books, as well as to what has been stated already in the preceding pages, render unnecessary any further discussion under this head. All I wish to add is to emphasize the extreme importance of the physician making a most vigilant search for a possible tuberculous origin in all cases of acute primary pleurisy unless where obviously due to traumatism or other non-tubercular causes. It is not always necessary, or even generally prudent, to acquaint the patient of such a suspicion, but if the physician be governed by it himself it will perform the function of one of the modern powerful electric head-lights in use on the engines on our trans-continental "flyers" that "race with the lightning from ocean to ocean." A strong conviction of a tubercular origin in our cases of pleurisy will not only make us more guarded in our prognosis, thus saving us from the deep humiliation our errors in bygone days were wont to inflict upon us, but it will throw a bright light far along our line of treatment.

Prognosis.—The results in tubercular pleurisy often bring upon the physician the opprobrium the surgeon is so frequently called upon to endure, when it is face-

tiously said that "the operation was a brilliant success, but it did not save the patient." The pleurisy may be relieved, but the patient succumb to tuberculosis.

The outlook is not always gloomy. When the disease is confined to the pleural surfaces, and proper treatment carried out, the prognosis is much more favorable than in pulmonary tuberculosis, for serous membranes, such as the pleura and peritoneum, are much less vulnerable to this infection than are many of the other tissues. In Osler's *Practice of Medicine* it is stated that "the subsequent history of cases of acute pleurisy forces us to conclude that in at least two-thirds of the cases of tubercular pleurisy it is a curable affection." I think when the etiology of pleurisy is better understood we will be able to look forward very hopefully for a still larger increase in the number of absolute recoveries from the effects of this disease.

Treatment.—If the following statements be true, and at present the evidence seems conclusive, (1) that the vast majority of all cases of pleurisy are due to tubercular infection, and (2) that tubercular infection when confined to serous membranes is by far the most curable of all infections from this source, the general principles of treatment are well defined. The patient should be placed in the best possible environment in regard to dryness of soil, elevation and abundance of pure air and sunshine. No cheaper or better accommodation can be found than a suitable tent, pitched on the southern slope of a moderately high hill. The pain can be relieved by external applications. Some prefer to use ice bags, but most patients find heat—dry or moist—more agreeable. Cough, beyond what may be required to remove serum from the bronchial tubes, should be relieved, as it not only increases the pain, but also irritates the inflamed surfaces. The functional activity of the skin, bowel and kidneys should be increased. The temperature can be regulated by cold drinks, tepid or cool sponge baths and by use of antipyretics. Special attention must be paid to the position of the cardiac impulse. Any impairment of the heart's action calls for extreme caution in the use of such depressants as the coal-tar preparations. The judicious use of stimulants and heart tonics is of great importance. The patient should be strictly confined to the recumbent position during the febrile stage, and especially if the heart's action be impaired. The question of diet calls for the most careful supervision. In the febrile stage milk and nutritious broths, and later as much of the most nutritious food as can be digested. Every possible effort should be made to keep the patient well nourished and his strength maintained. Hunger, fatigue, sleeplessness—in brief, all depressing influences—should me most scrupulously guarded against when the patient is able to be out. If there is any pain or soreness about the chest, dry cupping or small "flying" blisters may be used. During convalescence deep breathing should be practiced very assiduously. The inflation of rubber bags is a valuable exercise. Change to a more suitable climate should be insisted upon if the progress toward recovery be retarded. A high, dry elevation is desirable where frequent and deep respiration is a necessity on account of the rarified air.

The question of when to interfere in the removal of the effusion is often a very perplexing one. In many cases, when the fluid is serous or sero-fibrinous, quite large quantities of it may be more or less rapidly absorbed. When the dyspnea is not urgent and the cardiac impulse in normal position, it is prudent to wait, although the quantity of fluid may be quite extensive. The restriction

of fluids and the use of saline catharties, diuretics, diaphoretics, lung gymnastics, massage, dry cupping and a series of "flying" blisters may be tried to help in the absorption of the fluid.

Fowler lays down the following indications for paracentesis: (1) When there are signs of positive intrathoracic pressure; (2) when the following symptoms which usually accompany the above condition are present—a small, irregular pulse and urgent dyspnea, palpitation on slight exertion, lividity, or evidence of engorgement, and edema of the opposite lung. These symptoms may, however, be absent in cases accompanied by positive intrathoracic pressure so long as the patient is lying perfectly still. (3) When the fluid has been ascertained to be purulent its removal is necessary in all acute cases.

It may be necessary to remove the fluid more than once, but only a few repetitions can be borne by the patient without impairing his strength.

In aspirating strict antiseptic precautions must be observed. The needle or the canula—if a trocar be used—should be about one-tenth of an inch in diameter and about three inches long.

The positions usually selected are the interspaces between the sixth and seventh ribs in the mid-axillary line, or between the ninth and tenth, just outside the line of the angle of the scapula. The fluid should be withdrawn slowly and a careful watch kept on the action of the heart and respiratory movements. On the occurrence of urgent dyspnea or faintness the flow should be stopped and stimulants given. When evacuation is complete or sufficient relief given some antiseptic dressing should be securely fastened over the puncture. The evacuation of a purulent exudate belongs to the domain of general surgery.

CLINICAL REPORTS.

A CASE OF SIMULATED MOTOR APHASIA.

By Sidney I. Schwab, M. D., of St. Louis.

This case is of interest chiefly from the point of view of diagnosis. It illustrates the difficulty which may lie in the differentiation of hysteria, simulation and organic affection. The case further demonstrates the importance of seeking for a motive in all cases in which the diagnosis of simulation is at all probable, for the existence of a motive is always necessary before such a diagnosis is justified.

Mrs. F., aged thirty-seven years, was brought to the Neurological Department of the Jewish Hospital Dispensary by her husband, who reported that at two o'clock the preceding day she had suddenly lost the power of speech, although she understood what was said to her and attempted to respond by gestures. There was no history of a psychical shock or trauma of any kind, and the husband reported that he knew of no cause for the present condition. The patient appeared much depressed and frightened. The clinical history gave very little data towards the explanation of the case. The patient had been in fair health with the exception of an attack of temporary unconsciousness, dating about six months earlier. The vague reports concerning this attack threw little light upon its nature; in all probability it was either simulated or hysterical. No seizure similar to the present one had been observed. The patient was in no way subject to hysterical attacks or convulsions. The physical examination showed the following: The internal organs were negative. The muscular strength on the right side considerably below that of the left. The grasp of the right hand was very feeble as compared with the left. In spite of the apparent hemiparesis of the right side there was no defect in gait. Sensation was difficult to test, owing to the patient's inability to answer questions. There seemed, however, to be nothing abnormal. Reflexes: Both knee-jerks increased, but no clonus; the pharyngeal and abdominal reflexes normal; pupils normal; vision apparently good. An examination of the cranial nerves showed a slight but definite paresis of the seventh on the right and the hypoglosus on the same side. The tongue turned sharply to the right upon each protrusion. The right naso-labial fold was absent; the corner of the mouth on the right side was lower than on the left. The upper facial seemed normal. Speech: There was absolute motor aphasia, with a perfect understanding of spoken and written words; the patient recognized objects perfectly. The usual tests were made, and beyond the patient's inability to speak, no other speech defect was found. She was sent to the Jewish Hospital for further examination, and was kept isolated. While there an examination of the urine was made, with normal findings. Beyond absolute quiet and seclusion no treatment was given. The next day she began to speak, and in forty-eight hours her speech was perfectly restored. Facial paresis, as well as the right-sided muscular weakness, and the apparent hypoglosus paresis disappeared likewise. She was then dismissed from the hospital.

At the time of the first examination, a diagnosis of simulation was thought probable. Hysteria was excluded on account of the absence of any other object-

ive signs. The possibility of some organic lesion in the speech center was considered carefully on account of the apparent paralysis of the facial on the right side and hypoglosus. The possibility of some organic lesion in Broca's convolution was suggested by the foregoing symptoms, but was excluded for the following reasons: 1. Such a complete motor aphasia could result only from a very extensive lesion. Such a lesion affecting the speech center would naturally cause other disturbances. 2. The aphasia was so complete and exaggerated, and limited to the single element of verbal expression, that its very completeness made the diagnosis improbable. There was left then the diagnosis of simulation. In order to make this diagnosis a motive must be discovered. It was subsequently found that the patient desired financial assistance from the charity organization controlling the hospital, and had used this means to accomplish her purpose. The unusual simulation in this case of symptoms of the paralysis that is often complicated with motor aphasia is worthy of note. The motor aphasia accompanying apoplectic lesions of the internal capsule involving the island of Reil on the left side frequently presents a clinical picture not unlike the case here described. Whether it was purely a coincidence in this case or whether the patient had actually observed a case of motor aphasia, with right-sided paresis, is an open question. This case further demonstrates the fact that a seemingly functional symptom-complex may be accompanied by seemingly organic symptoms without invalidating the diagnosis of the former.

CASES OF CHRONIC APHTHOUS STOMATITIS.

By Henry Wald Bettmann, M. D., of Cincinnati.

Chronic aphthous stomatitis is a disease which is not described in the textbooks on diseases of the mouth. During the past two years three cases have come under my observation. The histories in all three cases are practically the same. The essential disturbance in all is the constantly recurring appearance of aphthous ulcers on tongue, lips, cheeks and gums. The ulcers do not differ in any respect from the typical aphthous ulcer as ordinarily seen. They are very painful; they vary in size from that of a pin-head to eight or ten times as large; they have the grayish white base surrounded by a reddish margin; they tend to heal in from four to seven days. Scarcely has one crop healed, however, before a second crop makes its appearance, and this process may be repeated without intermission for months and years. All my patients have been adult males without a history of syphilis.

Case 1.—D. B., aged forty-six years, merchant, came to me for treatment in the summer of 1901. For five years he had suffered from the practically continuous presence of aphthous ulcers in the mouth. He had tried various forms of treatment without marked benefit; only once during the five years did he enjoy immunity for more than a few weeks at a time. He was naturally of a nervous temperament, and had smoked to excess. Abstinence from tobacco for a year availed nothing. He had been told that his trouble was due to excess of uric acid, and had been dieted and placed upon alkalies; all without benefit. Treatment at various saline springs had done no good. My examination revealed no striking abnormality. Physical examination was negative. The saliva was normal. The urine was normal. A very slight degree of anemia existed. Hb

80 per cent. The gastric juice was hyperacid, containing 0.22 per cent. free HCl. Total acidity, 0.3 per cent. The slight hyperchlorhydria was the only clue to treatment. I placed him on a diet free from vegetable acids, forbade tobacco and all alcoholic beverages, and prescribed for him a mixture of magnesia and soda. He was instructed to wash his mouth twice daily with the following excellent mouth wash (formula of which was originated by Dr. Miller, of Berlin:)

℞ Acidi benzoic } aa 3.0
Saccharin }
Ol. Cinnamon 1.0
Alcohol ad 100.0

M. S.—One part to ten of water. Mouth wash. Hold in the mouth at least one minute.

His stomach was washed out at first three times a week to prevent any local irritation, but as the gastric mobility was very good the lavage was gradually abandoned. This treatment proved beneficial from the beginning, and was continued for nearly six months. During the last three months of treatment the patient was entirely relieved of all trouble. Since December, 1901, to date (a period of ten months), his mouth has remained free from all disturbance.

Case 2.—Mr. X., merchant, aged forty-two, came for treatment in 1890. Had been troubled with exceedingly painful eruptions of aphthous ulcers almost continuously for sixteen years. Smoked considerably. Did not use alcohol in any form. Was robust and considered himself in excellent health except for slight gastric disturbance. The tongue was frequently coated, and bloating and belching after meals were often annoying. Examination revealed no abnormality in the blood, urine, or in any of the organs. The gastric juice was hyperacid, containing 0.08 per cent. free HCl. There was slight gastric catarrh. The above-mentioned mouth wash was prescribed, lavage was recommended, and a proper diet was prescribed. Tobacco was forbidden. The patient refused to submit to lavage systematically, but used the mouth wash for a time without marked benefit. He then disappeared from observation. In August, 1902, he returned for treatment, the aphthæ having appeared without intermission since the time of his last visit. He still refused lavage. I placed him on a diet free from all acids, fruits and fried foods; ordered cholagogue and saline laxatives systematically: again ordered the benzoic mouth wash, and though the patient is still under treatment his improvement during the past month has been very marked and no ulcers have appeared during the past three weeks.

Case 3.—Male, adult, the resident of a neighboring city. Gave a history of having suffered many years without intermission from crops of aphthæ. I advised him to follow a plan of treatment as outlined above, but he passed from observation after his second visit.

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EDITORIAL COMMENT.

"WHAT ARE MEDICAL LIBRARIES GOOD FOR?"

It would appear, at first thought, that this question was of a purely academic character; that forming a subdivision under the general theme, libraries, its proper sphere of discussion would be upon the floor of a debating society; that, in short, for the practitioner of medicine, or in the editorial columns of a medical journal, it would be rather curtly dismissed as superfluous.

It is an interesting fact—indeed, an unfortunate fact—that this question, in St. Louis, is not merely of academic interest, but has assumed a vitally practical phase. The simple statement that out of some 1800 physicians resident within the confines of St. Louis, but 155 are members of the St. Louis Medical Library, suffices "to point the moral," but *fails* "to adorn the tale."

It is a *practical question*, for upon the solution of the problem depends the ultimate success, or failure, of the St. Louis Medical Library.

It is an *interesting question*, for the attitude of the medical profession of St. Louis toward the St. Louis Medical Library furnishes a valuable diagnostic clew to the relative scientific standard of the medical profession of St. Louis in the medical world.

Is it a fact that medicine is not, as yet, an exact science?

Is it a fact that, to a very large degree, it is based upon theory?

Is it a fact that these theories undergo change and development, and that the untenable theory is finally discarded?

Is it a fact that the evolution of a theory up to a certainty is accomplished by investigation?

Is it a fact that the minutes of progress are recorded in the literature of medicine?

Is it a fact that a library is the depository of the literature of medicine?

If such be *facts*, it surely must be conceded that the physician, in sheer self-defense, if upon no nobler basis, is obliged to be in close touch with a competent medical library.

Numerous methods naturally suggest themselves by which a man may remain abreast, or, in the isolated instance, measure a stride in advance of the march of medical progress. Their claim granted, it yet remains that the literature in accessible form must be at the command of the student of medicine, the general practitioner, the specialist, the man of research, the teacher; in other words, *the medical man.*

How often is it to be observed that the enthusiastic inventor of an instrument, an operation, some bit of laboratory technique, or some special form of diagnosis or plan of treatment, has his o'ersanguine expectation of fame quietly but absolutely checkmated, in the brief reference to a former worker, at the hand of a student of the literature.

What an enormous amount of work would be saved, what half-baked theorizing would be smothered, what tomes of mere verbiage would be sacrificed, what a refreshing hiatus in the proceedings of medical societies would ensue, if the medical man was familiar with the literature?

The general text-book is of value to the medical student; the journal and the monograph are unostentatiously but steadily supplanting it as pabulum for the scientific worker. It follows that a large collection of general text-books, but in particular a large file of the best journals and monographs constitutes an essential factor in the life and work of the up-to-date medical man.

Unless a man is possessed of most restricted requirements, on the one hand, or a comparatively luxurious income on the other, his individual library will prove sadly inadequate for his daily needs. It seems most obvious that a common library, deriving its support from the combined dues of its subscribers (supplemented when feasible by endowments), affords the logical solution of the problem. In no field do the principles of co-operation and centralization find a more beneficent exemplification.

It has been rather generally conceded among the medical libraries of America that the Index System of the St. Louis Medical Library is not only up-to-date in its plan and scope, but is, in fact, distinctly in advance of all competitors. Among other advantages worthy of note, from one hundred and eighty-eight journals on the shelves of the library, sixty-one have been selected by the officers of the library as representative of the best medical thought and work of to-day. *All the original articles of these sixty-one journals are indexed.* So that the busy practitioner, as well as the freshman, the medical dilettanti as well as the scientific worker has here at his ready command the cream of the literature of the medical world.

Membership in the medical library may be secured for an annual fee of five dollars—*the price of one medical journal.*

RADIOTHERAPY AS A THERAPEUTIC AGENT.

Radiotherapy, although a remedy of great therapeutic value in certain malignant conditions, is yet a dangerous agent, not only from the effects of its irtant or burning qualities, but from the erroneous impression as to its unlimited curative powers which is at present extant among the laity. Brilliant results from its use have only been obtained in those less malignant and superficial neoplasms which affect the skin primarily. Deeper carcinomatous growths covered by intact epidermis have at best only been benefited, judging from the reports. There lurks in the breast of all of us an experimental vein which, together with the patient's dread of the knife and his desire for a less radical procedure, often leads us into error; into "employing" a remedy which is largely experimental and which consumes time when our better judgment and experience would suggest the more radical or cutting operation. Thus a warning should be sounded. The X-ray operators should report their failures as well as their successes and place them in an unprejudiced light before the profession. A new remedy is often lauded for what it does not deserve, thus often bringing it into ill-repute when it is of the greatest value and assistance in certain selected cases. This is no doubt true of the X-ray. It fills a therapeutic gap in its curative effect upon superficial malignant ulcers, relief of pain, odor and discharge in inoperable cases, and its beneficial action in certain skin diseases. But in deeper carcinomata, where extirpation is possible, the reports of radiotherapists do not encourage its use.

Probably the most dangerous element in the use of the rays is that it is falling into the hands of unprincipled practitioners and quacks, who quote in their glib and inaccurate fashion radiotherapists of known repute. In this lies the greatest possible danger. Therefore, reports tending to show the true limitations of X-ray therapy are now of the utmost importance.

PULMONARY GANGRENE AND ACID–PROOF BACILLI.

Pulmonary gangrene is commonly understood to be a secondary condition in all cases, never primary. Among the causes to which it is usually taken to be secondary are pneumonia, tuberculosis and carcinoma, with wide-spread inflammations and interstitial and alveolar hemorrhages. Emboli of infection may cause it. Inspiration of fetid substances also may cause it. These are the causes commonly catalogued by the pathologist as playing a role in the production of this condition. In this connection, Ophüls reports in the *Journal of Medical Research* for June, 1902, five cases in which pulmonary gangrene was found at autopsy. During life and at the autopsy he found in each case an acid-proof bacterium, which decolorized with alcohol and hydrochloric acid mixture, but which was acid-proof to 25 per cent. sulphuric acid solution. He was unable to obtain a growth of the organism in any case. Though some variation existed in the morphologic characteristics of these several organisms, he concluded that they were all members of the same class, and that they had participated in causing the pulmonary gangrene. Mayer, a German military surgeon stationed in China in 1901, mentions even more interesting cases (Briefe aus Ostasien, *Muench. Med. Wochensch.*, 1901, 1775). Among his patients he found an unusual number of cases of pulmonary gangrene. In fifty-eight examinations in cases supposed to be tuberculous, he found in ten cases acid-proof bacilli which were

not tubercle bacilli, and which he classed as streptothrices. In the one case in which there was necropsy, he found a limited area of pulmonary gangrene. Fraenkel and Pappenheim called attention to acid-proof bacilli in cases of pulmonary gangrene. The well-known observation of Rabinowitsch may also be cited as showing that some cases supposed to be tuberculous are due to an acid-proof bacterium.

These observations are of intense interest, not only as a pure matter of observation on the part of the pathologist, but as having considerable bearing on the present method of quickly diagnosticating tuberculosis of the lung from a sputum examination. Pathologists have long since held that pulmonary gangrene is mostly secondary to tuberculosis of the lungs, because an acid-proof bacterium, resembling closely the tubercle bacillus, has been found in the sputum. Here we see in these observations that an acid-proof bacterium was found in the sputum and in the lungs in every instance, and yet neither was the bacillus the tubercle bacillus, nor was the condition with which it was found associated tuberculosis. More care should be taken by the clinician in his routine sputum examinations, so that differentiation between this acid-proof bacterium or streptothrix from the real tubercle bacilli may be made. Ophüls concludes that pulmonary gangrene is very probably always due to a mixed infection with pyogenic cocci and other bacteria of a more saprophytic nature. Quite frequently the latter belong to the class of actinomyces, and these may be more or less acid-proof. Without claiming anything for the specificity of any particular acid-proof bacterium for pulmonary gangrene, it might be well to bear in mind this conclusion of Ophüls and the observations of Fraenkel, Pappenheim, Mayer and Rabinowitsch.

THE QUESTION OF NEPHROPEXY.

From the extreme radicalism of Edebohls, who strips the kidney of its capsule before suturing it into place, and that of Carwardine, who paints the organ with liquid carbolic acid in order to obtain firmer adhesion, we encounter various devices and operations almost as numerous as the authors, until we reach extreme conservatism, which is aptly illustrated by a recent article in the *Therapeutic Gazette* (July 28, 1902) by Gallant. He takes the position that from ninety to ninety-five per cent. of women who suffer from movable kidney can be relieved without operation, and advises for treatment rest and quiet, sleep, diet, massage and exercise, visceral support, and operation, having devised a very ingenious corset to give support. Quoting Lichty, he says: "The surgeon usually speaks of the number of cases successfully treated by (attempted) permanent fixation of the kidney, but very little is said by him of the disappearance of the numerous symptoms and the ability of the patient to do her usual work after operation."

Here an injustice is evidently done the surgeon, for he is about as anxious for the relief of symptoms as he is about the fixation of the kidney; and also cognizance of those cases of nephroptosis with local symptoms only and without the great neurasthenia which Gallant depicts is left out of the question. He speaks of subjecting the neurasthenic to various operations; such as curettage of the uterus, abdominal section for tubal disease, repair of lacerated cervix, etc., "in fact, any procedure which will remedy or remove any source of suffering or irritation." He then has the nose and throat examined, any operation needed

done, and goes so far even as to advise, when called for, gastropexy, pyloroplasty, etc., seemingly advising such operations as are often done upon neurasthenics, with the exception of nephropexy. It is a well-known fact that neurasthenics may appear to need any or all of these operations. It seems strange to subject the patient to these and yet hesitate at nephropexy, which cannot compare in danger to some of the above, when Gallant clearly points out that the sagging downward of the kidney does cause manifold symptoms. The author evidently unintentionally makes a strong plea for nephropexy, when he advises other operations to relieve a source of irritation. It appears that the rational treatment consists in studying the individual cases and submitting to proper nephropexy those in which the local symptoms are manifest, and not expecting thereby to necessarily relieve the numerous other symptoms, of which neurasthenics complain, but at least to remove or ameliorate one source of irritation.

DIAGNOSING TYPHOID BY AID OF CAMERA.

The photographic camera, it is said, will occasionally enable us to diagnose typhoid fever a few days earlier than would otherwise be possible. The characteristic roseola is always preceded by an eruption on the abdomen quite invisible to our eyes, but capable of being photographed. According to H. Gibbes, the following technique gives the best results: The patient's abdomen is exposed and a piece of printed paper laid on it. The camera is focussed on the patient; the paper is then removed and while an assistant throws a bright light on the abdomen, the picture is taken. Only the most rapid orthochromatic plates give good results. At least six pictures should be taken of each case, for the chances are that only one or two of the plates will have a picture sharp enough for use. As a developer it is best to use a very dilute solution of hydroquinone or paramidol, so as to get as "contrasty" a plate as possible.

Positive results, it is said, may be obtained by this method before the appearance of either the Widal reaction of the blood or the diazo reaction of the urine.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

Investigations Concerning the Bacteria in Human Feces.—STRASBURGER (*Zeitschrift fuer Klinische Medicin*, vol. xlvi, pts. 5 and 6).—After thorough investigation of the subject the author concludes that:

1. Up to the present time the methods for determining the quantity of bacteria in the feces are very inaccurate, and cannot give even approximately correct results.

2. It is possible, however, by the author's method to separate mechanically the bacteria from the feces, and to weigh them. Exact results can be obtained by this method.

3. Normally, about one-third of the dry substance of the feces is made up of bacteria.

4. The amount of bacteria excreted daily by adults: (*a*) normally, an average of 8 g.; (*b*) in intestinal dyspepsia (without diarrhea), about 14 g., sometimes as much as 20 g.; (*c*) chronic constipation, 5.5 g.

5. In chronic constipation the solid substance of the feces is reduced, because the food is more thoroughly absorbed in these individuals. The decrease of bacterial flora in these cases is probably due to the decrease of the culture media in the colon. As a result of the diminished development of bacteria, there is also a diminution of the substances which stimulate peristalsis.

6. In a case of biliary obstruction the amount of bacteria was reduced to 3.2 g. per day. After removal of the obstruction the quantity again arose to the normal. This is of interest in connection with the so-called "antiseptic action" of the bile.

7. In infants there is normally about the same percentage of bacteria as in adults. In dyspeptic babes it can increase to double the quantity—*i. e.*, to two-thirds of the entire solids.

8. If one reckons the number of bacteria excreted daily, using the bacterium coli communis as the average size, he finds one hundred and twenty-eight billion bacteria in the normal feces.

9. At least one-half of the entire amount of N in the feces is due to bacteria, a fact which seems to have escaped former observers.

Concerning Syphilis of the Liver.—EINHORN (*Archiv fuer Verdauungskrankheiten*, vol. viii, part 3).—Although syphilis of the liver is not an infrequent occurrence, comparatively little has been written on the clinical aspects of the subject. The author gives a short resume of the history of this affection and some of the literature dealing with it.

He divides syphilis of the liver clinically into three groups:

1. Gummata of the liver.
2. Syphilitic cirrhosis of the liver.
3. Syphilitic affections of the liver (including groups one and two), with icterus.

The latter can be either acute or chronic.

Of the first class the author reports four cases. In all these there was marked enlargement of the liver characterized by nodules of various sizes. Antiluetic treatment brought about complete cures, anatomical and clinical.

Of the third class ten cases are presented with the same satisfactory results following anti-syphilitic treatment.

The symptoms of syphilis of the liver are pain in the right hypochondrium, sometimes constant, sometimes paroxysmal. If paroxysmal, the attacks may resemble gall-stone colics. In nearly every case there are digestive disturbances, such as loss of appetite, eructation, constipation, etc. There is loss of weight, though not usually so rapid or so marked as in cases of malignant growths of this organ. Icterus may be acute or chronic, and in the latter cases are nearly always due to pressure on the common duct. The liver itself is always more or less enlarged; if due to gummata the surface is very uneven; if due to cirrhosis the organ is simply enlarged. Enlargement of the spleen is not constant. Ascites occurs in the later stages.

It is not possible to differentiate between malignant tumors of the liver and gummata by the consistence. If the disease has continued for a year or two without great loss of weight, and if there is any history of lues, the resistance may be attributed to this cause.

An increase of the eosinophyle cell speaks for syphilis. Care must be taken not to confound the diffuse syphilitic enlargement of the liver with the hypertrophic cirrhosis due to alcoholism. In the former, there is usually a history of syphilis and luetic manifestations on the body. The anti-luetic treatment acts promptly.

The chief point in treatment is the free use of the iodides, gradually increased from two to five grammes, for a period of several months.

Leukocytosis in Lead Workers.—L. Napoleon, Boston (*Phila. Med. Jour.*, September 27, 1902).—The writer studied the changes of the blood in lead workers in twenty-four cases. Of these two were painters, one a plumber, another a lapidary who used an emery pencil, which he repeatedly placed to his lips while at work, and the remainder had been employed for a variable time in either "paint" or "lead works." The results of these investigations are as follows:

"A moderate reduction in the number of erythrocytes to 3,500,000 is the rule, yet in severe cases they may fall below this number. In a few instances, however, the red cells are found to be above the normal, as was observed in four cases of my series which showed 4,760,000, 5,090,000, 4,940,000, 5,500,000 cells per cmm. respectively.

"The hemoglobin was found to fluctuate between 32 and 85 per cent. No constant ratio was found to exist between the number of red cells and the percentage of hemoglobin, as is shown in the four cases of polycythemia above cited, in which the respective amounts of hemoglobin were 46, 32, 79 and 85 per cent. In the latter case the exposure to lead had been of short duration and the symptoms mild; the line about the teeth, however, was fairly distinct.

"Smears made from the different cases, and fixed by heat, were alike in displaying a rather high grade of poikilocytosis, the erythrocytes staining feebly in many instances; many appearing as mere shadows, while in others certain cells stained irregularly. Overstained cells were uncommon, macrocytes and microcytes numerous and nucleated red cells an occasional finding; of these, normoblasts were the commoner."

The Classification of Chronic Nephritis.—James B. Herrick (*Jour. of Am. Med. Ass.*, October 4, 1902).—No serious attempt has ever been made to classify cases of chronic nephritis from the standpoint of etiology. Morbid anatomists and pathologists are far from unanimous in their descriptions of the various types or groups of this disease. And physicians are not always able to make a differentiation that is satisfactory from the clinical point of view or that holds good in the light of post-mortem revelations. Yet it is important that we have some working classification, even though it be somewhat faulty and largely artificial.

The classification that seems the best is practically that of Senator. It is one that appeals to the clinician as well as to the morbid anatomist. The term "parenchymatous" can be used in place of "diffuse without induration," because, though not literally expressive of the true condition, which is more or less diffuse, it recognizes what is true, that in this form the parenchymal changes predominate; they are quantitatively greater than in the second variety, where the process, while diffuse, produces chiefly interstitial or stromal changes with resulting induration. The classification would be as follows:

1. Chronic parenchymatous nephritis. (Chronic diffuse nephritis without induration.)
2. Chronic interstitial nephritis. (Chronic diffuse nephritis with induration.)
   (*a*) Primary chronic interstitial nephritis.
   (*b*) Secondary chronic interstitial nephritis.
   (*c*) Arterio-sclerotic kidney. (Arterio-sclerotic interstitial nephritis.)
3. Mixed type—*i. e.*, a combination of 1 and 2.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

Diversion of the Portal Blood by Means of a Direct Communication Between the Vena Cava and the Vena Porta.—TANSINI (*Centralblatt fuer Chirurgie*, September 6, 1902).—The author tried the above several times upon the cadaver with success, and then communicated the idea to a student, who performed the operation upon ten dogs with a satisfactory result in seven instances. After severing the portal vein at the hilus of the liver, he sutured the free end into a slit in the side of the vena cava, whereupon the animals which survived the operation did as well as others of their kind until they were killed, more than two months later, and a satisfactory anastomosis found.

Congenital Dislocation of the Kidney.—DELORE (*Revue de Chirurgie*, No. 9, 1902).—Such cases are of special interest to the surgeon and the obstetrician, but how is one to distinguish the congenital from the acquired form? The author gives four points of difference. No. 1.—The congenital is fixed in its abnormal position. No. 2.—The shape of the kidney is altered. No. 3.—Its arteries are multiple and have unusual origins. No. 4.—The ureter is very short. In twenty-one cases which the author has collected the left was affected fifteen times, whereas the right was affected but six times. The displacement is downward, and it may be abdominal or pelvic, or a mixture of the two. It may be on its own side of the body, it may be on the median line, or it may be dislocated clear to the opposite side of the body. The author gives here the history of a woman forty years of age who was operated upon. The kidney was fixed in position with incomplete definite result. As far as symptoms are concerned, there may be none at all or they may be severe as result of pressure on other organs. The second case was seen by the author at an autopsy. As far as treatment is concerned, it may be said that the excision of the kidney is the only procedure which is sure to cure the case which survives the operation. The laparotomy is the operation of choice, and it should be done from in front.

On the Avoidance of Shock in Major Amputations by Cocainization of Large Nerve Trunks Preliminary to Their Division.—CUSHING (*Annals of Surgery*, Sep-

tember, 1902).—The diminution of arterial tension is the characteristic feature of shock, and while slight injuries to an extremity cause an increase in said tension, very severe ones cause a decrease of the same. When a certain amount of shock already exists, there is especial danger in the division of sensory nerve trunks. Cocain injection, by blocking the centripetal influences, effectually keeps down shock from this source. In one case described by the author the pulse jumped from 110 to 150 upon the division of the brachial plexus, no cocain being used. In a second, where the same thing was done after the drug had been introduced, there was absolutely no shock. When peripheral mixed nerves are put on a stretch there is an acceleration of cardiac rhythm, indicative of a reflex pressor effect. However, this may be followed by lowering of pressure if the trauma be too extensive. In extensive traumata to extremities the author advises other and early operation (with cocain as above) to rid the patient of the influences which tend to increase the already existing shock. Arterial tension cannot be judged by the finger on the pulse, but an instrument has been devised for the purpose. There are appended several charts which show the variance of the blood pressure during operations.

When is Acute Nephritis, Excepting the Tuberculous Form, Properly the Subject of Surgical Treatment?—LENNANDER (*Mitteilungen aus den Granzgebieten der Medizin und Chirurgie*, Band x, Hft. 1 und 2).—The most important of the diseases here considered is acute nephritis with miliary abscesses. The danger of urogenic infection of the kidney commences as soon as the outflow is in the least obstructed, and after the abscesses have formed in one kidney it is altogether possible that the same may occur in the healthy organ as a consequence of embolism. Thus it may come about, and probably does in most cases, that the two methods of infection combine to account for the condition. Where the transmission is through blood current, it is by far the greater number of cases which originate from the intestinal tract. However, the greater number of slight infections of this nature never lead to abscess formation, and are easily cured by internal treatment, which consists in great part in the drinking of immense quantities of water. The first and principal symptom of suppurative nephritis is pain in the vicinity of the affected organ. The disease is most frequent in men, because they are more subject to obstruction than are women, and is in consequence almost always bilateral. In the lighter forms of the disease the best preventive treatment is free and careful drainage of the bladder. It must be kept constantly empty. Where supuration has once occurred within the kidney, it is very likely also to affect the tissues immediately surrounding the organ, either by lymphatic transmission or by breaking down of the kidney capsule under influence of the pus. On account of the many blood vessels in the kidney and the tension which this capsule causes, these rapidly lead to general sepsis. The chief danger at first is for the second or healthy kidney. Hence the first indication is to thoroughly drain the diseased organ; but, however, it has been demonstrated that if the kidney is already slightly affected, still the patient may regain perfect health after an operation on the organ which is primarily most diseased. Of course, the exact diagnosis is highly difficult; hence every operation for this infection is primarily in the nature of an exploration. If the diagnosis has been correct, one finds edema of the fatty capsule; the kidney very dark in color and hard; then the little abscesses shining through the capsule or else felt as circumscribed nodes covered with fibrin; then the organ is split either in the ordinary post-mortem plane or else through the most diseased portion, after which it is good practice to excise everything which seems bound to undergo softening. A rubber drain is now placed in the pelvis of the organ and the incision stuffed with gauze, the same material being packed around the kidney. By this means the tension is relieved, the circulation resumes its normal

course and free exit of pus and urine is allowed. It is, further, good practice to completely remove the fibrous capsule of the organ. If it is found that the greater part of the kidney has undergone pus formation, it is well to completely remove the organ. If then there be obstruction of the bladder by clot formation, it is well to make suprapubic section at once. The principal symptoms for which operation is necessary are local pain and sensitiveness to pressure, these of course being reinforced by the usual chemical and microscopical examination. Such an operation as described is especially to be undertaken where a sudden oliguria or anuria occurs in a patient whose general condition is good and who manifests symptoms just detailed above.

The author gives histories of several cases upon which he has operated with results which must be characterized as brilliant.

Actinomycosis of the Appendix and of the Abdominal Wall.—THEVENOT (*Gazette des Hopitaux*, No. 90, 1902).—Thevenot considers that the disease as above localized always has its starting point in the intestines; and further, that it may simulate an ordinary appendicitis so perfectly as scarcely to be distinguished from it. The treatment in all cases, no matter where the seat of the disease, consists of radical surgical measures if possible, and at the same time of the administration of iodide of potassium in very large doses. The patient under consideration was a woman forty-five years of age, who had passed through several attacks of what was described as gastritis. In October, 1901, she was suddenly taken down with symptoms of an infectious disease within the abdomen, but without any noticeable starting point. Later it was made out that the appendix was highly diseased, and after two more attacks within the next four months she was operated upon. Before this time, however, a tumor had appeared in the abdominal wall. At the operation the disease of both the appendix and abdominal wall was demonstrated actinomycosis.

Several months later the patient was in perfect health. There can be no doubt that the disease was caused in her case by the ingestion of the specific germs, and the author explains the consequent infection of the tissues outside the appendix by the diapedesis of white blood cells loaded with germs.

Carcinoma Limited to the Vermiform Appendix.—HARTE and WILLSON (*Medical News*, Vol. 8, No. 5).—Only eight or ten authenticated cases of this kind are on record. The authors have seen one such case, and they have another from Philadelphia which they are permitted to report for the first time. Very fine illustrations which accompany the article serve to make clear the pathological facts at fault. The most likely cause of the trouble is agreed by our authors to be a catarrh which lowers the tissue resistance of the part. They do not believe that this disease can be diagnosed early in its history, and consequently its treatment must usually be undertaken under the impression that an ordinary appendicitis is being dealt with.

Several Complications and Difficulties in the Removal of the Vermiform Appendix in the Iterim.—ROUX (*Archiv fuer Klinische Chirurgie*, Band 67, Heft 3).—The histories of six hundred and seventy cases are reviewed, and of these one hundred and thirty were operated upon after primary emptying of the abscess. The most of these, because they were afraid of another attack, or else because they feared a hernia from the drain. Adhesions are not nearly so productive of harm as a many think. In only five of these was there phlebitis, and these on the left side. The difficulty attending the operation consists mainly in knowing the situation of the appendix, and further in the presence of perforations, and lastly in the presence of an incompletely resorbed exudate. This last factor can be avoided by waiting from four to six weeks after the attack, or until natural resorption is

complete. However, in one case it was necessary to wait seven months in order to gain this point. Suppose the abdomen or pelvis to be so filled with adhesions that it is impossible to do anything, these same will in most instances completely disappear after the affected intestines are nicely placed at rest, this being done by means of lateral anastomosis between the healthy parts. In almost seven hundred cases the author has but two deaths to report, one as the result of ileus and the other from embolism on the day the patient left the hospital.

A Case in Which a Spoon, Twenty-two cm. in Length, was Removed from the Stomach After Remaining There More Than Six Years.—CERNE (*Bulletins et Memoires de la Societe de Chirurgie de Paris*, Tome xxviii, No. 29).—Although this patient, a man fifty-eight years old, had carried his spoon for six years, still he had never suffered pain until three months previous to the time of the operation. Since this time the stomach had commenced to hurt him about half an hour after each meal, and had continued to cause distress for an hour or two. A radiograph showed the position of the spoon, so that it was a comparatively easy matter to cut down upon it and remove it, without causing the patient any bad symptoms. The spoon was thickly covered with mucus and blackened, the surface being at the same time extensively corroded. An analysis showed the spoon to be a mixed metal, from which the silver plating had entirely disappeared.

Pathogenesis and Surgical Treatment of Exophthalmic Goitre.—A. E. HALSTEAD (*Iowa Medical Journal*, Vol. 8, No. 9).—The author says the two chief indications for operation are symptoms which arise from pressure upon the trachea and the destructive manifestations upon the eye which are the consequence of its decided bulging. Later the symptom is most quickly effected by double excision of the cervical sympathetic. The methods of operation which have been employed are ligation of the thyroid artery, exothyropexy, enucleation of the nodular growths, and unilateral excision of the gland. However, none of these are of much value except the last named. Pressure upon the trachea results after a time in the degeneration of its rings, and as a consequence it softens and collapses, so that sudden death from suffocation may occur. The author seems to think that excision of the cervical sympathetic is as efficacious in the treatment of this disease as is partial excision.

Intestinal Resections Done Between the Years 1896 and 1901.—TIEMER (*St. Petersburger Medicinische Wochenschrift*, August 24, 1902).—There are ninety-three cases in those referred to, operated upon by the author himself. The operations were done for all the various causes which commonly necessitate such procedure. Forty-three of these cases were occasioned by strangulated hernia. Twenty-seven of the patients died as result of the operation. The author refers to the fact that the patient's age had in all instances a great deal to do with the outcome. This is illustrated by the fact that no one under thirty-six years of age died as result of the operation. In one case as high as three and one-half meters of the intestine was removed without causing the patient's death. The condition of the intestine at the time of operation has, as a matter of course, a great deal to do with the outcome. However, the author considers the prognosis in these cases relatively good, if the operation has not been postponed until the patient is greatly weakened.

Hernial Tuberculosis.—SACQUEPEE and MELLIES (*Archives Provinciales de Chirurgie*, Tome xi, No. 7).—Two of these rare cases are detailed. The first was a young soldier with an inguinal hernia, which had occurred as the result of heavy lifting, the same being irreducible. At the operation the otherwise ordinary appearing sack was seen to be covered on its serous surface with little granules

which, under microscopical examination, proved to be miliary tubercles. The patient recovered nicely from the operation, and a year later was shown to be perfectly well.

The second case was also a soldier. The interior of his hernial sack was found in very much the same condition as was the other. A year and a half after the operation he returned to the hospital with evident signs of tuberculosis. However, he was seen to be in good health some three years after the first operation. The microscope showed in both cases tubercles which represented a tendency to fibrous limitation. The disease is said to be exceedingly rare, and concerning which very little has been written. In twenty-seven of the thirty-two cases which have been described there has been no other trace of the disease found in the individual. It is an affection more common to childhood than any other time of life. It is, of course, part and parcel of general tuberculosis of the peritoneum. The primary seat of the disease is usually in the intestine or plevic organs. Its course is very similar to localized tuberculosis in other parts of the body. There are no typical symptoms. The prognosis is very grave, although it may be modified by surgical treatment if the case if taken in time.

Operative Treatment of Varicose Veins.—BLAKE (*Boston Medical and Surgical Journal*, August 25, 1902).—Trendelenburg's test demonstrates the fact that varicose veins are curable by surgery in certain cases, and, further, that the deep veins are patent. (This test consists in elevating the leg until it is free from venous blood, and then pressing the saphenous vessel, then moving the member and taking off the thumb, when a wave of blood will be seen to rush into the varicose areas.) It is claimed by some that disease of the superficial veins is always accompanied by similar indications in the deep veins and arteries, consequently it is extremely important that something be known about the condition of these deep structures before an operation is performed intended to completely obstruct the artificial vein. Twenty-five cases which Blake has followed resulted in seven cures, though it must be stated that he managed to communicate with but eleven of the patients.

THERAPEUTICS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

Bismuthose.—KURT WITTHAUER (*Deutsche Med. Wochenschr.*, 1902, No. 19).—Bismuthose is an albuminous bismuth compound, a white, odorless and tasteless powder. It contains twenty-one per cent. bismuth, swells up in water, dilutes acids and alkalies, but is not dissolved by the gastric juice. The writer has used the drug in a number of cases of gastric ulcer, giving fifteen to twenty grammes daily in a watery emulsion. One advantage of bismuthose over bismuth subnitrate is that the proteid radical of the former represents a nutrient value not to be despised, twenty grammes containing some one hundred calories. Moreover, in cases of hyperacidity the acid-binding power of the albumen is of value, while the formation of bismuth enteroliths, as in the case reported by Fleiner, are out of the question. Bismuth intoxication has not been observed even after the ingestion of very large doses of the drug. After its administration he should first lie down with a pillow under the lumbar spine, so as to elevate the gastric region; then he should lie on his left side, and finally on the right. In this way the bismuthose comes into contact with all portions of the gastric mucosa.

The drug is best given added to rice water or albumen water. An emulsion is produced by adding the hot water slowly to the bismuthose, stirring the while. The possibility of giving it in emulsion is another advantage over the subnitrate. In cases of hyperacidity without ulcers, bismuthose crackers, each containing one gramme, are elegant and effective. In pediatric practice, too, the latter are convenient.

The Dietary Treatment of Chronic Diarrhea.—G. ROSENFELD (*Centralbl. f. d. ges. Therapie*, 1902, No. 7).—The treatment of chronic diarrhea is based on the rule that in this condition the contents of the bowel must be as unirritating as possible. The observance of this rule will lead to the cure of most cases of diarrhea not due to ulcers, stenosis or varices, without the use of drugs. Rosenfeld gives a list of foods that he regards as irritating to the bowel. Besides green vegetables, fruit, fruit juices, beer and all very cold drinks and dishes, the list includes meat, butter and milk. The most harmful of the above foods is milk. What constituent of milk is responsible for this irritating property is not known. Butter, too, is harmful in such cases; raw butter even more so than fried. Of the meats, chicken and pigeon irritate the bowel least. Veal and beef come next. Boiled ham, on the other hand, is usually but not always borne well. The same is true of soft-boiled eggs. A strict diet for a patient suffering from chronic diarrhea consists almost exclusively of vegetable substances—rice, strained oatmeal, barley gruel, sago, cocoa, chocolate, sugar, tea, wheat bread, toast, crackers. The only animal food permitted is clear soup, especially that made of mutton. A sample menu would thus read as follows: Breakfast, tea with sugar or cocoa or chocolate and dry toast; later, clear soup and toast; dinner, barley soup, rice with cinnamon and sugar, chocolate, crackers; during the afternoon, clear soup and toast; supper, oatmeal, rice. In spite of its monotony this diet must be persisted in, and is usually followed by marked improvement. When the stools have been practically normal for two days, stewed chicken or pigeon may be added to the bill of fare; then roast fowl may be given, and finally, after some days, fried. Milk and butter should be added to the dietary cautiously and experimentally, and the return to general diet must be very gradual. The treatment, says Rosenfeld, is difficult but often successful. In uncomplicated cases he has yet to see a failure.

The Medicinal Treatment of Tuberculosis.—ERRICO DE RENZI (*Berl. Klin. Wochenschr.*, 1902, No. 18).—While not denying the importance of the hygienic treatment of tuberculosis, especially as conducted in sanatoria, the writer believes that the medicinal treatment should not be neglected.

The writer has used ichthyol in his clinic in a great variety of cases, many of them advanced. The most noticeable and most constant effect was the diminution of the bronchial catarrh. This diminution showed itself in the lessened amount of sputum and the partial disappearance of the rales. Secondarily, an increase of weight and an improvement in the general condition was noted. One advantage of ichthyol is the fact that it can be used for long periods of time without unpleasant secondary effects. It may be used with advantage in cases of actual or threatening hemoptysis, on account of its vaso-constrictor effects. In short, the writer believes that it should be given a trial in all cases not too far advanced.

If we expect to derive benefit from ichthyol it must be given in large doses and for long periods of time. The following formula is convenient:

℞ Ichthyol 10
Aq. menth. pip 80
Syr. simpl 20
Mix.

During the first week one teaspoonful in a glass of water is given daily, half being drunk in the morning, half in the evening. During the second week two

teaspoonfuls in two glasses of water are given daily, to be taken at four times. The dose is slowly increased in this manner until eight grammes are taken daily. In comparatively robust cases the dose may be increased as above, but daily instead of weekly.

Ichthoform is given in powders of ten to thirty centigrammes (grs. iss to ivss), ten powders being given daily. Its action resembles that of ichthyol, but it seems to have a particularly favorable effect upon the bowel disturbances accompanying tuberculosis. The meteorism, colic and diarrhea are effectively combated and a greater ingestion and assimilation of food made possible.

Sodium salicylate was given as an antipyretic. With few exceptions its use caused a drop in the maximum temperature from 102° or 104° to 99°, and of the average temperature from 100° to 98°. During the use of this drug tuberculin injections produced little or no rise of temperature, and cannot therefore be used as a diagnostic aid. Sodium salicylate must be used steadily for months if we desire to cure the fever, as the temperature promptly returns to its former height if its administration is interrupted. The drug is best administered in powders of one gramme (gr. xv) each, followed by a glass of water. Of such doses, four to six are taken daily; when the fever is unusually high, eight to ten. The former number produce no effect on the blood-pressure, while the latter do cause a fall (10 to 12 mm. Hg.) of the same.

Natural and Artificial Mineral Waters.—W. Jaworski (*Klin. Therap. Wochenschr.*, 1902, No. 7).—There is a wide-spread belief, both among the laity and the medical profession, that for some mysterious reason the natural mineral waters have a greater therapeutic value than their artificial imitations. On the basis of an extensive series of observations, the writer denies this *in toto*. The natural mineral waters have an entirely arbitrary constitution. It is far more logical to put up artificial waters containing the salts whose therapeutic effect is desired than slavishly to imitate the constitution of the natural waters.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

R. B. H. Gradwohl, M. D.

Preservative Solutions for Gross Specimens.—R. C. Rosenberger (*The Philadelphia Medical Journal*, September 20, 1902).—Rosenberg gives a summary of the different methods of preserving gross specimens. Formaldehyde solutions are commonly used in these solutions. Rubber gloves should be worn in working with such solutions, as the formalin has a very irritating effect upon the exposed skin. One advantage to formalin-containing preservatives is that specimens can afterwards be taken from such organs and used for section-making. It causes marked shrinking and hardening of all objects which are placed in it. A solution used to a great extent in the Jefferson Medical College is made up as follows:

℞ Alcohol (95 per cent.) ..... 2 parts
Glycerine ..... 1 part
Water ..... 1 part

The specimens are first washed for several hours in running water; they are then placed in the solution and kept indefinitely. There is no shrinkage of the specimen, the natural consistency of the organ is very slightly altered and the

color does not bleach as markedly as if pure alcohol were used alone. It is non-irritating to the hands.

Kaiserling's solution meets with more universal favor than any of the other methods. The first solution consists of—

℞ Formaldehyde ..... 200 c. c.
Water ..... 1000 c. c
Potassium nitrate ..... 15 grammes
Potassium acetate ..... 30 grammes

The specimen is first thoroughly washed in water and then placed in solution No. 1 for from one to four days. Place absorbent cotton at the bottom of the jar so that the specimen is not injured by pressure against the jar and the fluid can get around the specimen equally.

After remaining in the solution for the required time (this is determined by the size of the specimen) it is placed in 80 per cent. alcohol for twenty-four hours and then in 95 per cent. alcohol for twenty-four hours. It is then placed in No. 2 solution, which consists of—

℞ Potassium acetate ..... 200 grammes
Glycerine ..... 400 c. c.
Water ..... 2000 c. c.

The alcoholic solutions used in the Kaiserling method restore the color which is temporarily lost in the formalin-containing first solution. This method preserves the color of specimens. The jars should be kept away from direct sunlight.

Another solution for preserving the consistency of an organ or tissue, and one which also preserves to some extent the color, is that recommended by Galt (*London Lancet*, November 16, 1901):

℞ Sodium chloride ..... 5 oz.
Potassium nitrate ..... 1 oz.
Chloral hydrate ..... 1 oz.
Water ..... 100 ozs.

The specimens are first thoroughly washed in running water and then placed in 95 per cent. alcohol for from six hours to six days. Eight hours' exposure in formalin may also be used instead of alcohol. They are then placed in the above solution and kept indefinitely. Evaporation takes place rapidly from this fluid if the lid of the jar is not fitted tightly. This leads to an accumulation of crystals on the top of the jar, under the lid and around the edges which are, however, not hard to break up. As evaporation takes place more water can be added to replace that lost by evaporation.

A Method of Preserving Gross Specimens for Museum and Class Demonstration.—W. H. Watters (*The New York Medical Journal*, August 23, 1902).—Watters details a method of preserving gross pathologic specimens for class demonstration. It is an improvement on the Kaiserling method. The method consists in running the specimens through the first Kaiserling solution, then placing them in alcohol for five hours; then saturation for five days longer in No. 2 Kaiserling solution (formula in preceding abstract). They are then imbedded in a fourth solution consisting of—

℞ Kaiserling solution No. 2 ..... 15 parts
Gelatin ..... 1 part

This imbedding solution is made in this way: To one part of gelatin fifteen parts of No. 2 solution are added and allowed to stand for a day or two. The resulting mixture is then rendered liquid in a hot water bath, heat being gradually applied. To this is added the white of an egg and the heat is increased

until coagulation is completed. The solution is then carefully filtered and allowed to cool. Its preparation is somewhat similar to that of preparing nutrient gelatin for culture media.

Specimens prepared in the usual way for Kaiserling solutions are cut into sections of about one cubic millimeter thickness in such a manner that one of the flat surfaces shows the features desired. Into a Petri dish is poured a thin layer of the gelatin solution and allowed to cool down to 30° or 35 C. and in this is placed the section, face downward. The gelatin soon solidifies and thus holds firmly and evenly against the glass the particular surface desired to be seen. The entire Petri dish is now filled with No. 4 solution till a convexity is formed above the edges. A square, ground glass plate is removed from a basin of water and placed, quite still wet and with the rough surface down over the Petri dish. If this last procedure is performed carefully, touching first one edge of the dish with the plate, then dropping it slowly, a wave of gelatin will be formed which will force out any air bubbles that may be present. The plate is placed in position and the entire preparation left to harden, which takes place in two hours. The superfluous gelatin is removed with a coarse brush immersed in water. The glass is dried, a layer of Canada balsam is applied to seal the point of union between the plate and the Petri dish, and the name of the specimen written on the glass plate with ink.

For some reasons as yet unknown the colors of these preparations seem to be more permanent than of those remaining in the ordinary Kaiserling No. 2. These mounts are permanent, compact, neat, readily adaptable for class demonstration, and successfully preserve their colors.

The Bacterial Contamination of City Milk. Is it Harmful? Should it be Controlled by Health Authorities?—William Halleck Park (*Yale Medical Journal*, September, 1902).—From an examination of nearly 1000 specimens of milk in New York, gathered by the health department inspectors from the cars, from wagons and stores, and many specimens taken from children's asylums, it was found that the number varied from 1,000,000 to 100,000,000 per cubic centimeter.

Harmfulness of this milk: The children under one year, on heated milk received from decent farms, running before heating from 1,000,000, to 5,000,000 bacteria per c. c. did not suffer any serious harm from the bacterial products in the milk. During the summer these children had, off and on, intestinal disorders, but not much more than those in the same section of the city receiving milk from the very best possible dairies around New York. The children on Pasteurized milk showed some very interesting results: there were very few bacteria in this milk when first received—anywhere from 10,000 to 20,000. On the second day they had increased to 10,000,000. In some cases when the second day milk was given there was immediate vomiting followed by diarrhea. As the freshly Pasteurized did not produce this vomiting, there was no question but that the bacterial changes in the milk rendered it unwholesome.

Fresh milk running rather high in bacteria, when sterilized, did but little harm. Children fed on the cheap, four-cent milk from the groceries did badly. Intestinal disturbances, causing death in some cases, followed the use of this milk. Yet this milk was not extraordinarily high in bacteria. The bad effects were possibly due to the milk products resulting from taking milk from cows in poor health, etc.

In the asylums, where the children were from three to thirteen years of age, the results with milk very high in bacteria were not bad.

Altogether, it seems that fairly numerous bacteria in milk obtained from clean, healthy cows, living on good farms, do not cause harm in older children, and the products do not cause much harm in younger children when subjected to heat. When milk badly contaminated and improperly kept, so that the bacteria multiply rapidly, is fed to babies they do badly, and it seems that much

of the mortality is due to poisonous conditions of the milk developed by the bacteria.

Angina Due to the Bacillus Megaterium.—H. Vincent (*La Presse Medicale*, July 30, 1902).—Vincent reports a mild case of angina in a young soldier of twenty-two years. There was a slight fever at first. The pharynx was congested and the right tonsil covered with a slightly adherent yellow exudate. Cultures and smears showed the bacillus megaterium present. This organism is commonly found in fecal matter, in the air and in the soil. It is usually regarded as non-pathogenic, but it was evidently pathogenic in this case. Vincent was able to produce a fever and dyspnea in a guinea-pig by subcutaneous inoculation of the animal with a broth culture of this organism. All attempts to produce a membranous angina in the throats of guinea-pigs were unsuccessful.

Thiry, of the University of Nancy, found a similar yellow membrane on the tonsil of a case at autopsy, where cultures showed the bacillus megaterium. It is well known that the bacillus megaterium as found in the air can be endowed with pathogenic powers for guinea-pigs by frequent passage through their bodies.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

Pregnancy and Delivery in Cases of Advanced Tabes Dorsalis.—Mirabeau (*Centralbl. fuer Gyn.*, No. 6, 1902).—The author reports the following case: Patient is at present thirty-four years old. When seventeen she acquired a syphilitic infection. Nine years later she observed weakness, and at times pain in both limbs and symptoms of ataxia. When thirty-one years old she had a miscarriage. Mirabeau found at this time all the symptoms of an advanced tabes: complete paralysis of both lower extremities, loss of knee-jerk, complete ataxia, reduced sensibility, contracted pupils, rigid not responding to light, severe disturbance in the functions of bladder and rectum. Complete absence of sexual feeling since three years. Patient underwent another antisyphilitic treatment, followed by slight improvement, so that she was enabled to walk a few steps supported by a cane. Patient called on the author nine months later, being pregnant three months. After a third treatment with inunctions the pregnancy took a normal course. Labor began at the normal end of pregnancy. Since the uterine contractions were not felt by the patient, the escape of the amniotic fluid was the first sign that labor had begun. At this time the uterine os was found almost fully dilated. Delivery was completed within the next sixty-five minutes, during which period seven uterine contractions were noticed. Patient was fully unaware of these proceedings and did not realize what had occurred until she heard the baby, a well-developed girl, cry lustily. The lying-in period passed without incident.

This case proves that the motorial function of the uterus is to a considerable degree independent of the spinal cord, and apparently regulated by peripheric centers, situated in the uterus itself (in accord with experiments made by Goltz, in pregnant bitches.) It is a well known fact that too severe pains restrain parturients from using their abdominal muscles, therefore, in such cases morphine must be considered a valuable ecbolic. In the author's opinion in this case, as well as in two others which he cites from literature, the anesthesia due to tabes had a similar effect of agitating the help of abdominal pressure and hastening the expulsion of the fetus. What an irony of fate that a dreadful, incurable dis-

ease is capable of ameliorating the disagreeableness of labor in an ideal manner, by relieving the pain and shortening the duration of expulsion!

The author gives a short survey of the other few cases of parturition in tabes dorsalis known in literature.

Confinement in a Case of Advanced Tabes Dorsalis.—R. Cohn (*Centralbl. fuer Gyn.*, No. 16, 1902).—Patient was thirty-nine years old, and exhibited the typical symptoms of tabes. Anesthesia was complete. She was pregnant for the first time. In spite of her advanced age the confinement took an ideal course. Labor pains were not felt, and not until the fetal head was visible in the vulva did the patient realize that she was in labor. Puerperium uneventful. Patient succumbed about one year later to her disease.

Hemorrhage Into the Spinal Cord During Pregnancy.—Alex. Bruce (*Scottish Med. and Surg. Journal;* rev. *Med. Record*, September 6, 1902).—He gives the following principal symptoms in the case: Onset at the fifth month of pregnancy during an act of vomiting; sudden pain in the back and trunk; paralysis of the lower limbs and trunk muscles; paralytic retention of urine; constipation and great dyspnea; sensation absolutely lost below xipho-sternum; paralysis flaccid during rest of life; loss of left, persistence of right knee-jerk; disappearance of deep reflexes after six days and slight reappearance of them ten days later; rapid formation of bed-sores; painless and unconscious birth of twins at seventh month; death from bronchitis and exhaustion. At autopsy hemorrhages into the spinal cord were found, due to small tumors in the cord.

Reports of parturition in cases of anesthesia and paraplegia are extremely rare. Routh has collected six, and concludes that if the lesion is in the lumbar region the uterus may begin the labor automatically, but cannot complete it; if above the lumbar region the act can be completed, showing that the reflex mechanism in the lumbo-sacral region is sufficient of itself without any voluntary assistance. The case reported supports the latter conclusion, and also shows that the sensory path from the uterus enters the cord in the lumbo-sacral (or possibly lower dorsal) region.

Tuberculosis of the Larynx and Pregnancy.—A. Kuttner (*Deutsche Aerztezeitung*, 1901; rev. *Centralbl. fuer Gyn.*, August 9, 1902).—Based upon an observation of fifteen cases the writer advocates the following rules for cases of pregnancy, complicated by tuberculosis of the larynx: In patients who are in a hopeless condition the usual local treatment is resorted to, eventually tracheotomy performed. If the general condition is still good and the local process limited (small erosion or ulcer) the case is carefully observed. As soon as the process offers signs of propagation in form of infiltration, tracheotomy should be performed at once. If this operation is not followed within a few days by decided improvement of the local process, artificial abortion is indicated. The sooner this is done the better are the chances for the mother. In every case of far-advanced tuberculosis of the larynx, it is advisable to perform tracheotomy before labor begins, or at least to be prepared for this operation.

Myxedema, Parturition and Eclampsia.—A. Herrgott, Paris (*Annales de Gynecologie*, July, 1902).—The writer reports the following case: A girl of eighteen, who showed all the symptoms of myxedema, apparently due to congenital absence of the tyroid gland, developed during parturition eclampsia of a severe type. Twelve attacks occurred during, eight after the expulsion of the fetus. Patient recovered promptly of the eclampsia. Only traces of albumen could be found in the urine, and this led the author to the conclusion that in this special case the convulsions were not due, as usually, to insufficient function of

the kidneys or liver, but to the lack of the thyroid. He suggests the possibility of a special type of eclampsia caused by an intoxication which, in its turn, is brought about by the lack of thyroid secretion. Herrgott's theory seems well founded and is based upon the investigations and observations of Reverdin, Kocher, Verstraeten, Vanderlinden and others, which proved the power of the thyroid secretion to destroy certain toxins, and demonstrated a relationship between pregnancy and the function of the thyroid gland.

A Remarkable Case of Delivery of Twins.—C. DONS (*Ugeskrift fuer Laeger*, No. 25, 1902; rev. *Muenchner Med. Wochenschrift*, August 26, 1902).—Patient, III para, was March 5, 1900, delivered of a living child; weight, 2000 grams; duration of labor, six and one-half hours. Mother was of the opinion that the confinement took place four weeks before full term. A hemorrhage following expulsion of the first fetus was checked by removal of the placenta. The expulsion of the second fetus took place twenty-three days later, on the 29th of March. Labor lasted four and one-half hours; weight of the child was 3000 grams. Lying-in period passed normally. Both children were girls, who afterwards developed in a very satisfactory way. Secretion of milk did not begin until after delivery of the second child, so that the first had to be fed up to this time with the bottle.

Adrenalin in Metrorrhagia of the Menopause.—DEBROUD (*La Tribune Medic.*, July 23, 1902; rev. *Med. Record*, August 30, 1902).—One of his patients was a woman fifty years of age. Ergotine did not stop the hemorrhage from which she suffered, and the writer gave her ten drops of a 1 to 1000 solution of adrenalin. By evening the flow had diminished one-half. On the following day fifteen drops were administered. The improvement continued. On the next day twenty drops were given, and that day hemorrhage ceased. The dose was then decreased in inversed gradation. Since that time several catamenial periods have occurred regularly.

From all his experience the writer believes that adrenalin is a hemostatic of the first order in the severe hemorrhagias of menopause. Unless the case is urgent, he advises to begin with a small dose.

Aspirin in Dysmenorrhea.—LEHMANN (*Deutsche. Med. Wochenschr.*, August 7, 1902).—The author reports satisfactory results with aspirin in cases of nervous, non-mechancial dysmenorrhea. He gives doses of seven to fifteen grains, repeated at intervals of one-half to one hour, according to the condition, until from forty to fifty grains are given.

Illumination and Inspection of the Abdominal Cavity (Ventroscopy) in Vaginal Celiotomy.—D. VON OTT, St. Petersburg (*Centralbl. fuer Gyn.*, August 2, 1902).—One of the main arguments of the adversaries of the vaginal route is the impossibility of a careful ocular inspection of the abdominal organs, not just within the field of operation. It seems that this objection is overcome by an ingenious invention of the well-known Russian gynecologist Ott. The simple and satisfactory procedure exploited by him in a number of cases consists in the following: The patient is in an extreme Trendelenburg position. In this position the intestines sink back to the diaphragm and the pelvic wall, and those of the pelvic contents which are fixed, or but little movable, as rectum, vermiformis, bladder, etc., are presented for direct inspection. The only condition to be fulfilled being illumination of the field. Such is obtained either by means of a concave reflector, as used by laryngologists, or with special long retractors, constructed by Ott, which carry at their end a little electrical lamp. This inspection can be made either through the opened anterior or posterior fornix or with the greatest

satisfaction through the wider avenue after vaginal hysterectomy. One of the illustrations of the essay represents the view attained after extirpation of the uterus. All the ligatures can be seen, the appendages of one side which have been left, the processus vermiformis, rectum and bladder. For details as regards the retractors and the technique of the method, we have to refer the reader to the original article, which is well illustrated.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

Education and Development of Neurotic Children.—G. M. HAMMOND (*New York Medical Journal*, August 30, 1902) considers that the number of neurotic children is steadily increasing. The chief etiological factors are heredity, and alcoholism and syphilis in the parents. In infancy the neurotic disposition may show itself by a tendency to convulsion from intestinal disturbances, etc. Neurasthenia and hysteria, on the other hand, do not, as a rule, show themselves before the fifth or sixth year. Very often the only neurotic sign is precocious mental development, without corresponding physical power. These brilliant children often fail to fulfil the promises of their childhood in later life. With the advent of puberty, nervous diseases are common, such as neurasthenia, hysteria, epilepsy, migraine, masturbation and abnormal sexual conditions.

The remedy for this condition should begin early in life, as soon as the neurotic element is discovered. There should be special education for such children. Careful watch is necessary to see that the child is not overtaxed; mental fatigue must be absolutely avoided. No attempt should be made to force such children, for their brilliancy "is the evidence of disease and should be so regarded." The physical education is a matter of paramount importance. Every effort should be made to have the child grow up a healthy and vigorous man; the lack of mental training can easily be made up subsequently.

The diet should be mainly nitrogenous, but care must be taken to see that the child is not overfed.

The moral treatment is also of importance, and, though punitive measures should not be harsh, correction should be used when necessary. These children need restraint, must be taught to control their emotions, and, above all, to learn obedience.

The various bodily functions must be regulated, hygiene of the body attended to.

The author believes that by such measures children of neurotic tendencies may develop into perfectly healthy men and women.

Infantile Eczema—Its Etiological Relation to the Gastro-Intestinal Tract.—REY (*Jahrbuch fuer Kinderheilk*, September, 1902) concludes that

(1) Eczema is of very frequent occurrence in infancy, and very resistant to treatment.

(2) The view that its occurrence is always due to external (local) irritation is untenable.

(3) The great proportion of cases of infantile eczema show an intimate relation with disease of the gastro-intestinal tract, as is evidenced by the good results of internal medication and the frequent failure of purely local treatment.

(4) This form of eczema, which is peculiar to infancy, is to be differentiated from the ectogenous, parasitic and artificial eczemas of later childhood.

(5) The treatment of this form of eczema is, therefore, to consist in regulation of diet and the giving of intestinal antiseptics. Secondary infection and "eczematization" may require local treatment in addition. Even here, however, the internal treatment is the more important.

The Therapeutic Value of the Internal Use of Carbolic Acid.—DESSAU (*Pediatrics*, September 15, 1902) reports that he has used carbolic acid internally in four thousand cases, the majority of them infants and children. He finds the drug of especial value in the treatment of catarrhal affections of the respiratory tract with the symptom complex of influenza. His method of administration is to use a solution of the strength of 1, 2, 3 or 5 per cent., put up with glycerine and cinnamon water. The chemically pure drug should be used.

An infant under a year of age receives a teaspoonful of the 1 per cent. solution every two hours; a child of five years gets the same dose of a 5 per cent. solution.

No bad effects on the kidneys were observed in any case. The only idiosyncrasy against the use of the drug was that of vomiting.

Treatment of Tuberculous Peritonitis in Children.—ROTCH (*Archives of Pediatrics*, September, 1902) summarizes the treatment of tuberculous peritonitis from a study of sixty-nine cases treated at the Boston Children's Hospital.

The most common age of incidence in childhood is one and a half to four years. In the first year of life it is very rare and almost universally fatal, as at this time it is almost invariably part of a general tuberculosis. Pathologically, the cases may be divided into primary and secondary cases. The secondary cases are most often those infected from lungs, intestines and mesenteric lymph nodes. Where the lungs or the intestines are the primary cause, the prognosis is that of general tuberculosis, so that laparotomy is seldom of avail. Where the tuberculosis is primary in the mesenteric lymph nodes, laparotomy is often of value and should be tried. And where the tuberculosis is *primary in the peritoneum*, laparotomy is directly indicated and often results in complete cure.

In the primary cases the prognosis is better where the tuberculosis is represented by miliary tubercles of the peritoneum with ascites than in the cases with thick adhesions, without much fluid.

Taking into consideration the fact that in competent hands exploratory laparotomy is a safe procedure in comparison with non-operative treatment, and the further fact that spontaneous recovery without laparotomy occurs only in a small minority of the cases, the author believes that the laparotomy should be done whenever it is possible.

Cyto-Diagnosis in Meningitis and Pseudo-Meningitis.—The *Rev. Mens. des Mal. de l'Enf.* for September, 1902, contains a summary of the present status of cyto-diagnosis in the various forms of meningitis, based upon the Paris thesis of Demange.

Under normal conditions the cerebro-spinal fluid *does not* contain leucocytes or red-blood cells. It has been found, however, that the fluid obtained by lumbar puncture in cases of meningitis *does* contain cellular elements; and, further, that the varieties of cells found differ in the various forms of meningitis.

Briefly summarized, it may be stated that in tubercular meningitis the cells found are nearly always lymphocytes.

In cerebro-spinal meningitis the cells are nearly always polymorphonuclears. This rule is, however, not absolute.

For occasionally in a meningitis no cells are found, and, per contra. in a few cases cells have been found where there was no meningitis.

In addition, there is a distinct prognostic value to these examinations. Thus, in cases of cerebro-spinal meningitis that go on to recovery, it is found that the number of leucocytes gradually diminishes, to disappear just before recovery is complete.

The value of such examination becomes apparent in cases where careful bacteriological examinations, with culture and eventual animal inoculation, cannot be made, in that the simple examination of the centrifugalized sediment of the fluid may aid materially in the establishment of a definite diagnosis.

With reference to the cases of pseudo-meningitis occurring in the course of typhoid fever, gastro-intestinal disturbances and the like in children, it is at present impossible to formulate any definite law. In the fluid obtained by puncture in cases of typhoid fever, lymphocytes are sometimes found, which, under the conditions, would certainly not indicate the existence of a tubercular meningitis.

But even in these cases the examination may have a great negative value, for if the cerebro-spinal fluid contain no cellular elements, it would clearly indicate that we have to do with simple meningeal irritation, and not with a true meningitis.

Empyema in Infants and Children.—KOPLIK (*Medical News*, September 13, 1902) says that it is not possible in infants and children to differentiate the symptoms of pleurisy with effusions from those of empyema. In most children, before the age of five the effusion is likely to be purulent. In children empyema follows some acute affection of the lung in 95 per cent. of the cases. Naturally, this affection is most often a pneumonia, though bacteriological examination of the fluid shows that a mixed infection is not infrequently present. The tuberculous forms of empyema are relatively infrequent in childhood. Empyema may follow the acute exanthemata, also typhoid, tonsillitis, appendicitis, sepsis of the newly born, etc. It sometimes happens that the effusion is at first serous, later becoming purulent, without extraneous infection.

In a few cases, not necessarily tuberculous, the effusion is hemorrhagic.

The symptoms are usually masked by those of the causal affection. The temperature is usually elevated; there is more or less cough, pain and dyspnea. Exhausting night-sweats are common. The diagnosis must rest on physical signs and exploratory puncture.

The prognosis in the post-pneumonic form is not bad, except if there be complicating secondary broncho-pneumonia, or where the pneumonia persists. The prognosis of the tuberculous forms rests upon the age of the patient and the extent of the lung involved in the pleuritic affection; but, on the whole, it is better even in this class of cases than it is in adult life.

Surgical Treatment of Empyema in Children.—DOWD (*Medical News*, September 12, 1902) summarizes as follows:

(1) For simple cases of empyema the following treatment is used: Excision of about one and a half inches of the seventh or eighth rib in the posterior axillary line; light ether anesthesia is usually employed; the purulent coagula are removed; short rubber tubing, cut partly across, doubled and held by large safety pins, is used for drainage; abundant gauze dressing is applied and changed when saturated.

(2) If the patient's condition contra-indicates general anesthesia, an incision in the chest may be made between two ribs under cocain anesthesia.

(3) Aspiration is only used to give temporary relief in patients who are in great distress from the pressure of the fluid, or temporarily to relieve the second side of a double empyema after the first side has been opened.

(4) The patients are allowed out of bed as soon as is practicable, and the expansion of the lung is encouraged by forced expiration.

(5) Irrigation is only used where there is a foul-smelling discharge from necrotic lung tissue.

(6) Secondary operations are not done until good opportunity has been given for healing; usually three or four months should have elapsed after the primary operation, and there should have been no noticeable improvement for about a month.

(7) In the secondary operation the expansion of the lung should be encouraged by incising, stripping back, and, if necessary, removing portions of the thickened pulmonary pleura.

(8) The examination of forty-four of the patients at long periods after operation indicates that recovery is usually complete in the simple cases, and that there is surprisingly little deformity in most of the severe cases.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

Syphilitic Epilepsy.—FEINBERG (*Neurolog. Cent. Blatt.*, September 1, 1902).—Epilepsy is not infrequent as the result of cerebral syphilis. Irritable causes for the outbreak of convulsive attacks are found in meningeal products, sclerotic thickening of the meninges, adhesions of the meninges with the brain substance, circulatory disturbances, compression, thrombosis, obliteration of vessel with consecutive softening, the predilection of gummous inflammation for the motor area, etc. Luetic epilepsy shows itself in two forms: (1) Epilepsy without any cerebral disturbance; (2) epilepsy with cerebral phenomena which introduce or follow it. In both cases the attacks are in no way different from those of typical functional epilepsy. The author describes cases which illustrate the two types. Luetic epilepsy frequently takes the Jacksonian form. In cases of the first type, the diagnosis between tumor, dementia paralytica and epilepsy may be very difficult. It must not be forgotten that tumors may exist which are too small to create much increase in intracranial pressure, but may cause epileptic attacks for a long period of years. It is only with the growth of the tumor that symptoms follow which may allow of its diagnosis. In all cases of doubt an antispecific treatment should be instituted without delay. In two cases of specific Jacksonian epilepsy the following symptoms were found: (1) A history of constitutional syphilis, with traces of the same remaining; (2) transitory amnesia; (3) repeated twitchings in the left lower extremity; (4) slight paresis of the same; (5) sudden attacks of faintness, with temporary loss of consciousness; (6) immediately following Jacksonian epilepsy, without loss of consciousness; (7) on the following day hemiparesis of both left extremities; (8) three days later aphasia lasting six days.

The Earliest Symptom and the Importance of the Tendo-Achilles Reflex in Tabes.—S. GOLDFLAM (*Neurolog. Cent. Blatt.*, September 1, 1902).—By means of the absence of the patellar reflex, it is possible to make an early diagnosis of tabes. Initial tabes is a term given to a tabes in which the trias, Westphal, Argyl-Robertson pupil, and characteristic pain are present. As the two former symptoms may exist for a long time unknown to the patient, it is of interest to note which of these three is the first to appear. The patient naturally complains of pain first, because the other two may exist for a long time unnoticed by him. In order to solve this question, the author describes some cases where it was possible to observe the first appearance of symptoms and to follow their develop-

ment for many years. From such observations the author is convinced that the characteristic pain is the earliest symptom of tabes. The absence of patellar reflex is probably next in importance. The author calls particular attention to the disappearance of the Achilles tendon reflex at the same time. He quotes Babinski's opinion that not infrequently the Achilles tendon reflex is absent before the patellar reflex is affected.

On the Dietetic Treatment of Epilepsy.—SCHNITZER (*Neurolog. Cent. Blatt.*, September 1, 1902).—A short time ago R. Balint published a dietetic method of treating epilepsy, which was a modification of the well-known procedure of Toulouse and Richet. This consisted in so arranging the diet that in twenty-four hours about two grams of NaCl were replaced daily by three grams of NaBr, which was baked into the bread instead of the salt. In order to test the efficacy of this method, the author chose sixteen epileptics, in whom the diagnosis of genuine epilepsy was certain. The diet given to them was as follows: Daily one-half liter of milk, fifty grams butter, three eggs, without any salt, four hundred grams bread and some fruit. The bread was baked with NaBr instead of with salt, and was so made that each four hundred grams contained three grams of NaBr. The length of time of the test was forty-two days. While the result was not so glowing as that described by Balint, yet it was sufficiently hopeful to merit further trial. The result of this experiment was as follows: In two cases there was a total absence of attacks, in ten cases a very great improvement, in two a slight improvement, and in two the treatment was without result. In most of the cases the intensity of the convulsive attacks was markedly diminished.

Some Cases of Juvenile and Infantile Tabes.—OTTO MAAS (*Monatschrift fuer Psychiatrie und Neurologie*, September, 1902).—Several cases of juvenile and infantile tabes have been reported during the last year. Brasch has carefully gone over all of the cases hitherto published, and has found that only seven of them can be regarded as absolutely free from criticism in point of diagnosis. In all of these undoubted cases the etiology of inherited syphilis may be regarded as actually demonstrated. In this article six cases from Oppenheim's clinic are described. All of the cases are clinically at least tabes, some being of the juvenile and some of the infantile form. In three of the cases hereditary syphilis was the etiological factor most in evidence. Whether this form of tabes presents certain characteristics not found in the adult form is still an open question, which cannot be positively settled until a much greater material has been collected. The author also calls attention to the fact that no microscopic study of a case of undoubted juvenile or infantile tabes has yet been made. It is interesting to note that all the cases reported in this paper are females, a fact that is of more than passing moment for the reason that in adult tabes the proportion of male to female is about four to one, according to Bramwell's figures, based upon a material of six hundred and thirteen cases. This is accounted for by the fact that hereditary syphilis is found as frequently among one sex as another, whereas acquired syphilis is found more frequently in the male sex.

A Contribution to the Radical Cure of Exophthalmic Goitre, With the Ultimate Results in Eight Cases Treated by Thyroidectomy.—J. ARTHUR BOOTH (*Jour. Nervous and Mental Dis.*, September, 1902).—The groups of symptoms in exophthalmic goitre may be explained by the following classification: (1) Those cases dependent upon changes in the central nervous system; (2) those due to disease of the cervical sympathetic; (3) those arising from excessive or altered function of the thyroid gland. In the first class of cases there are distinct lesions in the medulla, which have been verified by a number of autopsies. In this group of cases no benefit is to be received from operative measures. The second class of

cases is characterized chiefly by symptoms referable to the sympathetic system. In autopsis in this class of cases thickening of the inferior cervical ganglion has been found. Operation on the sympathetic has shown good results. Under the third class there is positive proof of changes in the thyroid in a very large number of instances. The chief reasons for assuming that these cases have their origin in the thyroid are: (1) Study of clinical evidence; (2) results of experimentation; (3) post-mortem findings; (4) operative measures. The author records in this article eight cases, of which six were permanently cured, one improved and one died. The writer is not prepared to say as yet that the treatment by operative measures is the best and the most efficient, but that more marked and rapid benefit has been obtained under surgical than medical treatment. If the case does not improve under the customary treatment, too much time should not be allowed to elapse before resorting to the knife, for too prolonged a delay materially increases the risk of the operation and renders success less certain and permanent. The following conclusions are noted:

(1) Cases of Graves' disease may be completely cured both by thyroidectomy and bilateral section of the sympathetic.

(2) In view of the fact that some cases are cured by internal medication, there must be a certain proportion in which the affection does not induce structural changes in any organ.

(3) No theory can be regarded as adequate without taking into consideration the function of the thyroid gland.

(4) Three factors must be considered in the production of the disease: (*a*) The central nervous system; (*b*) the connecting fibers: sympathetic and vagus; (*c*) the thyroid gland.

(5) A lesion of one of these parts may produce a specific alteration in the others, the consequences of which, together with the exciting cause, may give rise to the symptoms of Graves' disease.

The Deep Reflex of the Great Toe.—G. Rossolimo (*Revue Neurologique*, August 15, 1902).—This study of the Babinski reflex is based upon a material of two hundred and five cases. In ninety-two cases, with lesions of the pyramidal tract, this reflex was found in fifty-one, and was lacking in forty. In seventy-nine cases, without lesions of the pyramidal tract, it was present in eleven cases. The Babinski reflex can be simulated by the extension of the toe combined with that of the extensor tendons of the foot, or without it. The method of eliciting this reflex is as follows: The patient is either seated or reclines; the left foot is grasped by the right hand, or vice versa; the other hand supports the leg under the calf. After having determined that the muscles of the foot and of the toes are relaxed, the index finger of the right hand is applied by its palmar surface to the plantar surface of the great toe, in order to give to it a maximum dorsal flexion; then the pressure is relaxed, and the effect noted. Then either a simple trembling of the toe, mechanical in nature, takes place, which lasts until the big toe returns to its normal state, or a reflex contraction of the extensors of the flexors of the great toe occurs. The following conclusions are noted: 1. In general this reflex does not normally exist. It is only in certain cases that the phenomenon of extension can be observed. 2. Ordinarily one observes the deep reflex extension in cases of exaggerated excitability of the reflexes in general; in the majority of hysterics, neurasthenics, in acute infectious diseases, in the early period of hemiplegia and, chiefly, on the normal side. 3. In cases of pyramidal affections, where there exists at first a reflex contraction of the extensors, this latter tends to disappear and to become transformed into a reflex of the flexors. 4. The reflex flexion of the great toe is one of the symptoms of lesion of the pyramidal tract. In twenty cases of this reflx seventeen belong to this category. As to the three others, one was in a case of Friedreich's disease,

which presented at the same time a very marked Babinski. 5. The deep reflex flexion of the big toe exists always in indisputable affections of the pyramidal tract, which is not always followed by the Babinski phenomenon. Therefore, this deep reflex in flexion has a certain definite value.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. McC. Johnson, M. D.

A Study of the Macroscopic Anatomy of the Hypertrophied Prostate.—Albarran and Motz (*Ann. des Mal. des Organ. Genito-Urin.*, July, 1902).—No attempt at a methodic description of the hypertrophied prostate is made, but merely a study of some special points, particularly the prostatic capsule and the relations of the gland to the urethra and the neck of the bladder; first, in their normal state, and, second, when there is hypertrophy.

The article is so profusely illustrated that to essay an abstract without the aid of the illustrations would be almost fruitless; however, the following, mostly at variance with the commonly accepted views, seems to be of interest:

The prostatic capsule is not a capsule proper to the organ, but is made up of the fibrous walls of the cavity which contains it, and its base and summit are devoid of a capsule. The urethra at the apex of the gland lies quite near its under or rectal surface, while gradually in passing backwards it approaches nearer the pubic aspect. The prostate extends upon the sides of the trigone, embracing it like a horseshoe, but does not cover it. At the bladder neck two sets of glands may be noted: One, the superficial or sub-cervical, is situated in the mucous membrane of the bladder wall; the other, the deep or true prostatic glands, has its origin beneath the muscular coat of the bladder. The deformities of the prostatic urethra are very noticeable. It is at times extensively elongated from above downward, while from side to side it is commonly quite narrow. Frequently it is very uneven, with divers recesses, pit-falls for a catheter, due to small prostatic projections. Contrary to common belief, the bas-fond commences at the level of the neck of the bladder and not behind the trigone. When the median lobe is hypertrophied, the bas-fond is situated immediately behind the neck, having for its anterior wall the most anterior part of the trigone, and for its posterior wall the posterior portion of the trigone. In hypertrophy, the gland does not cover the trigone, but the urethra and the neck of the bladder elongate. In fact, if a pin is stuck through the bladder wall at the superior median border of the prostate from without inward, it will penetrate the elongated urethra just in front of the neck of the bladder, or the neck itself. Rarely is it otherwise. Many varieties of prostatic hypertrophy are described and illustrated.

Note on the Origin of Urine Albumen.—Aschoff (*The Lancet*, London, Sept. 6, 1902).—As the result of the injection of various proteid bodies into animals, substances are formed in the blood which are capable of precipitating *in vitro* solutions of the proteid materials originally used for inoculation. The substances possessing this property are commonly termed "precipitins." Specific biological tests have been in this manner obtained for a number of proteid bodies. For example, an animal previously treated with ordinary milk yields a serum which precipitates the milk casein. Likewise, the serum of animals treated with albuminous urine precipitates the albumin present in fresh samples of urine. The recent experiments of Mertens appear to furnish conclusive proof

that the albumen in nephritic urine is derived from the blood. Mertens found that the serum of rabbits treated with human blood precipitated solutions of the albumins present in urine. There appears, however, to be a possible source of fallacy in Mertens' observations, inasmuch as he did not test whether a precipitate could likewise be obtained by the injection of the proteid constituents of the kidney epithelium. With the view of furnishing the necessary control that appeared to be lacking in Mertens' experiments, viz., whether the injection of kidney substance resulted in the production of a precipitin for urine albumen, the author has undertaken and reports various experiments with negative results.

Thus, as far as he has been able to carry his experiments, they tend to confirm Mertens' experiments, and to support the view that the albumin present in nephritic urine is derived from the blood, and is different from the specific kidney albumins.

The Possible Aid to the Discovery of the Tubercle Bacilli in Urine.—Bryson (*Jour. Cut. and Genito-Urin. Dis.*, September, 1902).—Under certain circumstances it appears that the bladder may act is a collecting reservoir for entrapping and holding large numbers of tubercle bacilli when in the course of tubercular disease these micro-organisms enter the urine stream. To make a practical use of this property, Bryson has employed the following technique: After the patient has emptied the bladder by voluntary urination, a sterilized soft rubber catheter is introduced into it, and what urine flows out, or can be made to flow by hypogastric pressure, is collected in a separate vessel. The end of the catheter is now pressed between the fingers and withdrawn, thus bringing with it the urine remaining within. This is added to that previously drawn. It was always found that tubercular urine obtained in this way contained many more bacilli, and that they were more easily found than in that which was passed voluntarily by the patient. The author has used this method with satisfactory results. Suspecting that the increase in the number of bacilli might have been due to contamination from the catheter, the glycerine lubricant or smegma, various experiments and investigations were undertaken to eliminate possible error, but the results remained the same. He reports five typical cases, with photomicrographs of the bacilli, showing the great variation in numbers of bacilli found in the tidal and residual urines thus obtained.

Subparietal Rupture of the Kidney.—Davis (*Ann. Surgery*, September, 1902).—A case of subparietal rupture of the kidney, on which was first done a nephrotomy and afterwards nephrectomy, with a good recovery, is reported. The author then considers thirty-three cases which he has collected from literature, and having discussed the etiology, prognosis, diagnosis and treatment of the condition, quotes the opinions of various surgeons as to the advisability of suturing the kidney wound after nephrotomy.

He concludes in part as follows:

1. That the reduction in the mortality since Keen's report has been largely due to improved technique.

2. The expectant plan of treatment is permissible in cases where slight hematuria is the only symptom. Tumefaction, much blood in the urine, severe pain and history of great injury, each is a positive indication for prompt operative intervention.

3. Early operation should be done in all cases where the history of the case and the symptoms point to serious injury of the kidney. (*a*) Nephrotomy, with gauze tamponade, where the patient has not lost enough blood, so that little subsequent hemorrhage would not endanger life. (*b*) Nephrectomy, where the kidney is irreparably injured, and in less extensive injuries where either sepsis or hemorrhage is likely to prove fatal.

4. In delayed cases it may be difficult or impossible to know just what is

best to do. Every phase of the case must be considered, and then, if in doubt, operate.

5. Shock is the violent disturbance of the nervous system immediately consequent upon injury. While this is some ground for hesitation in those cases of true shock, most of the cases described as shock are depression of the vital force from hemorrhage or sepsis, and nothing short of prompt surgical intervention will prevent collapse.

6. Operate on the history of the case rather than wait for symptoms which may only suggest what should have been done earlier, but at last proclaim without hope for relief.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

The Early Diagnosis and Early Treatment of Cutaneous Cancer—Epithelioma.—C. W. WARREN, M. D. (*Med. Exam. and Pract.*, September, 1902).—Treatment of skin cancers should always be radical. The author says personally he has employed arsenical paste for many years, and still continues to do so with the best results. This he has in recent years incorporated with orthoform, with the advantage of producing less pain and without decreasing its therapeutical effect. For the past year he has combined with this a course of X-ray treatment, and in a number of instances has employed the latter exclusively with favorable although not such prompt results.

In many cases of epithelioma upon the face, adjacent to the eye, and in situations where possibly the caustic cannot be so easily applied, the coincident use of electrolysis with X-ray exposures has given the promptest and best results.

There is no plan of treatment which guards absolutely against recurrence. Many patients, especially those of advanced life, show a decided tendency to the development of new growths, and that these occur at the margin of the cicatrix produced by the destruction of the original tumor is in no way surprising, as they are often known to develop upon surfaces entirely free from local irritation or pathologically changed.

The paste which he advised some years ago to take the place of Marsden's is made by adding to white arsenic twice its bulk of orthoform and then adding water, drop by drop, until a mass having the consistency of soft cheese is produced. This is spread with a spatula over the ulcerated area, and in tumors having no ulceration it is better to scoop out the soft central portion with a curette; or, if a crust is present, to remove it. The surrounding skin is best protected from the caustic action of the arsenic by painting it with collodion, and this he is accustomed to use tinted with methylin blue, so as to make it more apparent just where the protective collodion has been applied. A protective dressing is then used and sealed with plain or medicated collodion.

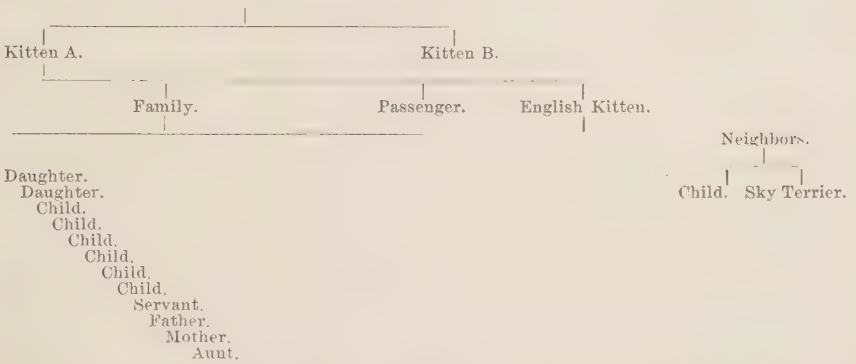
In the use of electrolysis the needle attached to the negative pole is always the one to be inserted beneath or into the morbid growth, employing from two to ten milliamperes.

In the prophylactic treatment of warts and moles a flat needle can be passed from side to side, undermining and removing the growth without cutting or hemorrhage.

There are many methods of treating this class of new growths, but the combination of caustic paste, electrolysis and X-rays appears to be the quickest, safest and most efficient.

Note on a Specimen of Tinea Microsporon of the Cat.—LESLIE ROBERTS, M. D. (*British Jour. Derm.*, September, 1902).—Two kittens, "A" and "B," resided in India, both became infected with small-spored ring-worm fungus which made their bodies a "little scurfy." "B" remained in India, while "A" was brought to England by a gentleman who became infected from the kitten. The kitten was given to a family and several of its members were thereby infected. A graphic history of the spread of the disease from some original source is copied below from Mr. Roberts' ingenious report.

Some unknown host with ring-worm:



X-ray Method—Abstracts from Dermatological Section of Seventeenth Annual Meeting of the British Medical Association.—(*Brit. Jour. Derm.*, September, 1902).—Dr. Freund, in his paper upon "Radiotherapy and Phototherapy," in speaking of the X-ray method says:

1. The effective factors in this are probably the X-rays themselves and the electric surface tension of the tube. Vaso-motor effects are produced as in ordinary spark discharges.

2. Skin diseases suitable for X-ray treatment. Clinically, one group is separated from the rest, its essential feature being the removal of hair—*e. g.*, ring-worm, favus, sycosis, hypertrichosis. In this class the X-rays are much more effective than Light-rays, but both methods stand much on an equal footing in the remaining class of cases.

3. The depilatory properties of X-ray tube are due to direct destructive action or to alteration in the blood supply of the follicles. X-rays possess no bactericidal properties.

4. In the remaining group, cell infiltration and proliferation are essentials—*e. g.*, lupus, epithelioma, in which the destructive influence of the rays is beneficial. The rays also exert a powerful influence in promoting the formation of connective tissue and cicatrices. They may act also directly on the specific poison.

5. X-raying has a more penetrative effect than can be obtained by use of chemicals. The rays in weak doses stimulate and in strong doses destroy hair growth.

6. Comparison of X-ray method and Finsen's method for lupus vulgaris. On the whole, much about the same length of time is required in the two methods. The cosmetic results of both are equally good. First X-ray large surfaces and treat remaining foci by Finsen's method.

7. Should tubes be soft or hard? The best guide to be found, not in the estimated qualities of the tubes, but in the reactions actually observed. Practically identical results can be obtained from either hard or soft tubes by adapting the time of exposure, strength of current and distance of tube. Reactions depend largely upon idiosyncrasy, and again upon the parts exposed. Hard tubes

are perhaps safer. With these the radiation can be pushed till visible effects are produced, whereas with soft tubes one must work more in the dark and make allowance for reactions before they are visibly manifest.

8. Clinical effects of X-raying: (1) Intumescence of the skin; (2) mild erythema; (3) pigment changes; (4) loosening of hairs; (5) subjective phenomena, itching and burning, etc. Importance of being able to recognize the above effects.

LARYNGOLOGY AND OTOLOGY.

IN CHARGE OF

WILLIAM E. SAUER, M. D.

Chronic Inflammation of the Pharyngeal Tonsil Without Interference with Nasal Breathing.—JAMES W. ROBERTSON (*Northwestern Lancet*, September 1, 1902).—The author calls attention to a type of chronic inflammation of the pharyngeal tonsil which is not sufficient to cause obstruction to respiration, but which represents a low grade of chronic inflammation, pouring out its secretion into the naso-pharynx, giving rise to a post-nasal catarrh which is extremely obstinate and causing various reflex disturbances, and in many cases giving rise at intervals to a subacute eustachian salpingitis or to an acute otitis media.

In this form of inflammation the symptoms differ from those present with an obstructive hypertrophy (as is the case in the adenoid vegetations in children), and the principal condition for which the patient seeks relief may be an obstinate and chronic post-nasal catarrh, sometimes accompanied by a stubborn cough, with expectoration and a constant irritation of the throat. On inspection the pharyngeal tonsil appears but slightly enlarged, is firm, and is usually covered with a mucous secretion. The nasal passages, unless there is an accompanying chronic rhinitis or hypertrophied turbinals, are usually free from secretion; but there is present a chronic discharge which may find its way forward into the nasal cavities, or, dropping down, may excite a laryngitis or bronchitis. It is attended on the patient's part by a hawking and spitting on rising in the morning in the effort to clear the throat from the accumulated discharge, which has become tenacious and dry.

The most frequent complication accompanying a chronic inflammation of the pharyngeal tonsil is the tendency to acute congestion of the gland with involvement of the nasal passages, or, as the patient states, repeated "colds in the head," during which there may be a closure of the eustachian tubes, or direct involvement of the eustachian tubes may occur from the presence of the mucopurulent secretion in the naso-pharynx, or the ear involvement may progress into a chronic otitis media.

The treatment in these cases consists chiefly in the *thorough* removal of the diseased gland by means of the curette and forceps, followed by topical treatment in the form of cleansing and stimulating applications. In many cases constitutional treatment in the form of tonics, etc., will be found necessary.

The author has reached the following conclusions:

1. That a chronic inflammation of the pharyngeal tonsil may exist without any obstruction to nasal breathing.

2. That many cases of post-nasal catarrh are due to the presence of a chronically inflamed pharyngeal tonsil.

3. That some cases of acute and chronic otitis media have their origin in an eustachian salpingitis which was due to a low grade of inflammation of the pharyngeal tonsil.

4. That in the treatment of some cases of chronic otitis media the source of

the trouble may be overlooked and no permanent improvement will follow until the underlying cause be removed.

5. That if the presence of a chronically inflamed pharyngeal tonsil were more generally recognized and thoroughly removed there would be fewer cases of otitis media.

A Case of Ulcerated Sore Throat Caused by Vincent's Bacillus.—SMIRNOFF (*Medicinskoie Obozreine*, vol. lvii, No. 4; rev. *Phil. Med. Journal*, August 30, 1902).—The author reports a case of angina closely simulating diphtheria in a woman twenty-eight years old. Both tonsils were enlarged and hyperemic. The right was ulcerated and covered with a dirty gray exudate. There was an offensive odor from the mouth and the submaxillary glands were enlarged. A microscopical examination of the exudate revealed the presence of the bacillus fusiformis of Vincent. The patient recovered in a week. The author quotes the opinion of Speranski, who maintains that such cases are not at all rare, and that the only reason why they were not discovered with greater frequency is to be looked for in the similarity between this form of ulcerative angina and diphtheria, making it impossible to distinguish the two without a microscopical examination.

A New Method of Diagnosing Disease of the Maxillary Sinus.—S. PIETRO (*Archivo Italiano di Otolgia e Larynalogia;* rev. *Jour. Eye, Ear and Throat Diseases*, vol. vii, No. 4) calls attention to a new method of diagnosing disease of the antrum of Highmore. The instruments required are two rubber tubes 160 cm. long, having at one end a rubber tip for the ear and at the other a cylindrical glass tube 3 cm. long, and a tuning fork of sixty-four or ninety-six vibrations. The tips are placed in the ears and the glass tube on the outer wall of the antrum, canine fossa, corresponding points on the alveolar border, the free margins of the molar teeth, etc. The tuning fork is then set in vibration and placed on the dorsum of the nose. If either antrum contains pus, the vibrations will be heard more distinctly on that side. The writer has made observations on dead bodies and on the living, and claims this to be our most certain method of diagnosing antrum disease.

A Case of Nasal Vertigo Simulating Epilepsy.—E. WOKES (*Lancet*, August 16, 1902) reports a case of nasal vertigo closely simulating epilepsy. The patient was a man aged forty, who had his first attack in 1895. He was unconscious for fifteen minutes. The following summer had another seizure. From that time until September he had had several. Nasal trouble was suspected and he was then sent to the hospital, where a history of sunstroke fifteen years previous was obtained, and the case was regarded as epilepsy. At that time the patient was having attacks almost daily. One day he had three. His memory became defective and he wept frequently. He had an antecedant aura, but couldn't tell just what it was. When the author saw the patient he was very feeble and spirits depressed. Nasal examination revealed hypertrophies of both middle turbinates, especially the right, which was pressing against the septum. The right middle turbinate was removed, and up to July, 1901, he had had no return of the trouble, when he then had a severe seizure and several slight ones. An examination of the nose was again made and a marked hypertrophy of the middle turbinate was detected. The middle turbinate on the left side and the remaining stump on the right side were removed, and since that time there has been no return of the seizures and the patient enjoys good health.

Three symptoms as associated with the attacks in this case seem, according to the writer, to differentiate this case from one of true epilepsy. They are: (1) Hyperacusis, indicated by the loud noises observed by the patient; (2) the tendency to uncontrollable weeping; (3) loss of memory. These symptoms, especially the last two, are shown by experience to be in constant association with

the chronic form of vertigo of nasal origin. They point to extension of the reflexes to the vestibular branches of the auditory nerve supplying the end organs of equilibration. That these symptoms were the outcome of reflex irritation and were not due to a central lesion is evidenced by their immediate and complete cessation following the removal of the exciting cause.

A Contribution to Nasal Reflex Neuroses.—Eduard Aronsohn (*Archiv fuer Laryngologie und Rhinologie*, Zwoelfter Band, Hft. 3).—After giving a list of the various nasal reflex neuroses which have been recognized as such, the author adds a new one. The case was that of an intelligent woman who had been treated some five or six years previously with the electro-cautery for an asthma of nasal origin. The attacks were greatly diminished, but in the last year they had been returning again. Local applications of cocaine (ten per cent. solution) would relieve her, but she noticed that each application also produced a desire to defecate, which was all the more remarkable, since she was of constipated habits. Almost immediately after the applications she found it necessary to visit the toilet. The author thought at first this action was produced by the cocaine, but applications of water had the same effect. He concluded that a reflex neurosis was produced by irritation of the nasal mucous membrane.

OPHTHALMOLOGY.

IN CHARGE OF

John Green, Jr., M. D.

An Operation for Establishing a Cul-de-sac for the Wearing of an Artificial Eye—With Report of Cases.—J. E. Weeks (*Jour. A. M. A.*, August 23, 1902).—Numerous operative procedures involving the transplantation of a flap of integument or of mucous membrane with a view to establishing a *cul-de-sac* where the conjunctival sac has contracted to such an extent as no longer to permit the wearing of an artificial eye have been devised. All have been performed with a certain measure of success, but in all failure has frequently resulted from enormous shrinkage of the graft, even in cases where the primary result appeared to be excellent. Weeks has devised the following operation, which has been uniformly successful in the five cases in which it has been resorted to: The lid is dissected from the orbital tissue, the dissection being carried to the tissue "just above the perosteum at the margin of the orbit." Canthotomy is performed if necessary. A skin flap one-third larger than the defect to be covered is removed from the inner aspect of the arm and placed in warm, normal saline solution, care being taken to trim away redundant subcutaneous tissue. The flap is fastened to the bottom of the groove by three sutures, which are "made to engage the periosteum of the margin of the orbit and pierce the integument of the cheek (or of the brow when the upper *cul-de-sac* is being restored) about 2 mm. apart." Interrupted sutures are used to fasten the margins of the flap to the margins of the defect.

The flap is maintained in position by a plate cut from compressed rubber tissue and shaped to an appropriate contour. The plate is allowed to remain in position seven or eight days. An artificial eye may be introduced at the end of three weeks.

Ulcer of the Cornea in Small-Pox.—D. C. Bryant (*Western Medical Review*, September 15, 1902).—Prior to the discovery of vaccination, at least thirty-five per cent. of all blindness was due to the ocular complications of small-pox. At

the present time, in countries where vaccination is generally practiced, the percentage has fallen to about three and five-tenths per cent. In Mexico, where vaccination among the poorer classes is practically unknown, the number of persons blind from this cause is again very large.

Ulcer of the cornea is the ocular complication which is of most serious import. The cornea is probably never the site of a primary pustule, but the ulcer is to be regarded as an independent complication. It originates as the result of (1) pustules occurring on the ocular conjunctiva or on the edge of the lids; (2) conjunctivitis without pustular formation; (3) intense swelling of the lids; (4) as a primary lesion through the conveyance by the blood stream of the disease virus. Ulceration occurs typically late in the disease, but in the three cases reported by the writer the first ocular symptoms were concomitant with the appearance of the cutaneous eruption. Recovery is tedious, usually with the formation of a dense central leucoma.

Zonular Cataract.—J. B. Story (*Ophthalm. Review*, September, 1902).—This peculiar affection of the lens was first described anatomically by E. von Jaeger, in 1854. It is usually bilateral and frequently congenital, and may be described as a partial opacity implicating a sphere of fibers between the clear nucleus and the clear cortex. In certain cases there are several separate zones of opacity sandwiched in between the clear zones. The volume of the lens is diminished.

Arlt was the first to point out the frequent occurrence of convulsions in children afflicted with this form of cataract. He ascribed the opacity to a disturbance of nutrition between the nucleus and cortex. Horner noted in these cases many of the signs of rickets, and supposed that a temporary disturbance of nutrition of a rachitic nature produced defects in the young growing fibers, without affecting the older central fibers. He assumed that new transparent fibers subsequently formed external to the opaque zone. The nucleus was supposed to be normal.

Beselin has recently discovered the existence of minute vacuoles in the nucleus; and Schirmer has demonstrated a similar vacuolization between the nuclear periphery and the cortex. Thus the entire lens interior to the zone of cataract exhibits pathologic change. Schirmer's explanation is as follows: "Some temporary lesion of nutrition affects the entire crystalline lens and produces vacuoles among the fibers, but these changes are only sufficiently marked in the youngest fibers to produce a definite clinical opacity, and this is the zonular cataract. If the whole lens nucleus and cortex happens to be pretty nearly equally affected we have a stationary central cataract, which may be looked upon as a sort of imperfect zonular cataract. The shrinking of the nucleus produces clefts, and to the same cause is due the diminished size of the lens in these cases."

Schirmer's theory demands the assumpsion that all zonular cataracts begin as total cataracts, albeit of relatively slight saturation. Hitherto no case of total infantile cataract which has subsequently developed a clear peripheral layer has been recorded. Moreover, comparing measurements of zonular cataracts (4.4-5–6 mm.) with the diameters of lenses from the seventh month of intra-uterine to the second year of extra-uterine life (5–7-87 mm.) make it difficult to believe that zonular cataract, if it implicates the whole lens existing at the time, can arise in the first or second year of life.

The editor regrets that through an oversight the paper "Is the Dislocation of the Lens into the Vitreous Ever Justifiable?" abstracted in the July issue was accredited to Dr. G. F. Luker instead of G. F. Suker.

BOOK REVIEWS.

WUERZBURGER ABHANDLUNGEN AUS DEM GESAMMTGEBIET DER PRACTISCHEN MEDIZIN. Herausgegeben von DR. J. MUELLER UND PROFESSOR OTTO SEIFERT. A. Stuber's Verlag in Wuerzburg. G. E. Stechert, New York agent. Price per volume, containing 12 numbers, Marks, 7.50

In the April number of the *Journal* we took occasion to call the attention of our readers to this publication. It brings in each number in form of a critical review written by a recognized authority an essay dealing with a certain medical problem. The following treatises have appeared recently: "Pathology and Therapy of Stenosis of the Intestines," by Professor Bayer (Prague); "Neuron and General Physiology of the Nerves," by Professor Schenck (Marburg); "Pathogenesis and Treatment of Gout," by Docent Strauss (Berlin); "Ambulant Treatment of Fractures," by Docent Riedinger; "Modern Principles of Treatment of Fibromyomata of the Uterus," by Professor Hofmeier (Wuerzburg).

BEKENNTNISSE EINES ARZTES. Von W. WERESSAJEW. Verlag von Robert Lutz, Stuttgart. 1902.

This interesting book, by a Russian physician and litterateur, affords a minute resume of his evolution as a medical man. In a very pleasing style he narrates his first impressions in the clinical lecture room, his qualms at the dissecting table, the repugnance excited by the first operation. A fatality resulting from his first tracheotomy induces in him profound self-reproach, remorse and disgust. Critically he scrutinizes his daily progress as a medical man. He contrasts the buoyancy and enthusiasm of the student with his sense of dissatisfaction and helplessness when brought face to face with the tangible problems of daily practice. Surely far more than the vast majority of his colleagues was he overwhelmed and discouraged by the difficulties of life in general, and medical practice in particular. Recording his manifold experiences the author accompanies his narration with reflections upon a wide range of subjects of interest to the modern physician. He speaks of vivisection, of the distressing financial conditions of the Russian physician, of the influence of modern medicine upon racial development, of the great practical importance and necessity of a blind belief on the part of the patient in drugs, even though they manifestly be ineffective, etc., etc. All these problems are elucidated from different standpoints, but nowhere does the author offer a suggestion how these unsatisfactory conditions might be improved, how disagreeable necessities, such as repeated examination of very sick patients by students, could be avoided, in which way the laymen could be taught to better understand and appreciate the scientific physician's aim and work.

The writer exhibits in this book his views on modern medicine, he shows what it has achieved and exposes its deficiencies and shortcomings.

And what may be the effect of such candid "confessions of a physician?" German critics are inclined to condemn the book, since no good can be derived from telling the laity that the physician knows but little of the etiology of disease and is almost helpless in its cure. Granted, but it would surely be injustice to the author to create the impression that his book has been written only with the spirit of stigmatizing our diagnostic and therapeutic inability. We feel that the book is well capable of doing good by shattering the self-conceit of some of the younger, by disturbing the self-satisfaction of some of the older practitioners. We are convinced that no physician, who sees in his profession something beyond a simple means of making a livelihood, will finish reading this book without feeling that it contains many an idea worthy an afterthought.

And as regards its probable effect upon the laity: some chapters may do harm, some may not be understood, but many undoubtedly are adapted to driv-

ing home much needed instruction in support of the sublime position which our profession should be granted among all other vocations and trades of mankind.

TREATISE ON DISEASES OF THE SKIN. By HENRY W. STELWAGON, M. D., Ph. D. W. B. Saunders & Co., Philadelphia and London. 1902.

This work is designed for advanced students and practitioners of medicine. It contains twenty-six full-page lithographic and half-tone plates, all excellent reproductions of the various diseases which they portray. It is the most exhaustive and complete treatise upon disease of the skin in English, even excelling in bibliographie the works by continental authors. The author has adopted the classification of Hebra, as modified by Crocker and Marrow. He considers this the most practical, his main effort in the book being to place before the reader in the most practical manner the literature and knowledge of the subject. In this effort he has admirably succeeded, for we know no more eminently practical work upon the market. When a subject is discussed so deeply and thoroughly as has been done by Dr. Stelwagon, and all the leading theories quoted, it is exceedingly difficult to remain clear and practical, but confusion has here been avoided, the writer resisting the great temptation of entering into the melée with "eyes in fine frenzy rolling" and a well-filled fountain pen. He has stuck to established facts, touched upon theories and has written a most excellent book; a book which is exhaustive yet practical.

DIE MASTURBATION. By DR. HERMAN ROHLEDER. Fischer's Buchhandlung, Berlin. G. E. Stechert, New York. 1902.

This is the second edtition of Rohleder's well-known work. An introduction by Schiller, the director of the Gymnasium in Giessen, indicates the pedagogical purpose of the book. On the whole the author takes a moderate position concerning this most vexed question, and treats it with less exaggeration in regard to the results of the practice than is usually found in works on this subject. The closer an author comes to treating the subject of masturbation in the objective manner that other medical questions are treated, the nearer will he come to a purposeful and useful exposition. The subject is treated as if it were a clinical one, under the heads of etiology, pathology, results, diagnosis, prognosis and therapy. The subject of prophylaxis is dealt with in great detail, and the author believes that the foundation of any successful therapy must be found in prophylaxis, the first rule of which must be the careful observation of every child and the instruction from the earliest age possible in regard to the evil results of the habit. This is a much debated question, and Rohleder brings forward no more convincing proof of the correctness of this method than is found in most other works on the subject. The book is interesting and probably presents the fairest opinion of the subject of masturbation that is to be found among any recent work.

PSYCHO-PATHOLOGICAL RESEARCHES. (Studies in Mental Dissociation.) By RORIS SIDIS, M. D., Ph. D. G. E. Stechert, New York. 1902.

This is a volume of interesting investigations undertaken with the object of studying the problems presented by the phenomena of functional psychoses. The first study of the series presents the data of the main phenomena observed in dissociated states of functional psychoses, especially in regard to the psychomotor reaction of subconscious systems. The second is a study of alcoholic amnesia, dealing with the bringing out of subconscious memory. The next is the study of the growth and development of persistent dissociated subconscious systems, and the disturbances brought about by their periodic eruption in the

upper strata of mental life. The case which illustrates this study is one that would ordinarily be classified under the term of psychic epilepsy. The fourth study reviews and discusses phenomenon of mental dissociation in an interesting case of depressive delusional states. The last two deal with dissociated states in psycho-motor epilepsy. This work is an interesting addition to the psychology of morbid mental states, and the laboratory method used by Sidis gives an added value in support of the conclusions he draws as the result of his work. It must be admitted, however, that the complicated terminology is confusing, and hides well-known facts under the guise of apparently novel discoveries. On the whole, the effort of the writer to study such cases in an objective laboratory manner must be commended.

FEMMES MEDECINS, ETUDE DE PSYCHOLOGIE SOCIALE INTERNATIONALE. Tome I.: Femmes Medecins d'Autrefois, par MARCEL BAUDOUIN. Avec 9 Photogravures. Institut International de Bibliographie, 93. Boulevard Saint-Germain, Paris. 1901.

This interesting book by Marcel Baudouin on "Female Doctors" is instructive to the American public for many and various reasons. The medical profession as well as the laity imagines that only in Anglo-Saxon countries women doctors are encouraged in their pursuit, whereas a perusal of the work in hand will change our opinion in favor of many of the European countries. Of course there have been obstacles in the path that led to success, but when one remembers that the most famous women doctors flourished in the middle ages, when prejudice was great at times and seemingly insurmountable, one can but praise the results achieved. Selecting some of the women at random, we find a sketch of Agnodice of Athens, "the first champion of women who studied medicine," according to Edith A. Huntley, and who lived during the first century B. C.; of Aspasia, end of the first century after Christ—not she who was a congenial friend to Pericles, but another, who wrote several treatises on suppressed menstruation, on deviations of the uterus, on condylomata and various obstetrical subjects; of Nicerate of Byzantium, fifth century, who cured St. John Chrysostomus of a supposedly incurable disease of the stomach; of Anna Morandi-Manzolini of Bologna, 1716–1774, "a woman who was very expert in anatomy," and who occupied the chair of anatomy at the University of Bologna and was famous throughout Europe; of Laura Maria Catharina Bassia-Verati, 1711–1778, scientist and philosopher rather than practicing physician; of Salomee Rusiecki-Halpir-Pilstein, eighteenth century, probably the most famous woman practitioner of her time; and of the eccentric and apparently homosexual Henrietta Faber, 1820, who, disguised as a man and known as Henry Faber, practiced at Paris and Havana, Cuba, with great success, married a woman, had many adventures, and seems to have been a sort of Mademoiselle de Maupin. These are but a few names, and do but scant justice to the book. To appreciate the industrious research of the author, one must read it at one's leisure, and by doing this, one's mental latitude in regard to a subject so little known will be greatly increased.

CHIRURGIE DE L'UTERUS, par HENRI DELAGENIERE. Avec 378 figures dans le texte. Institut de Bibliographie scientifique, 93. Boulevard Saint-Germain, Paris, 1898. Price, 10 francs.

The author, whose reputation as a gynecologist reaches beyond the borders of his native country, presents us, in his "Surgery of the Uterus," with an elaborate work. The book is divided into five parts. The first of these contains the surgical procedures on the ligaments of the uterus. The following parts give us the operations on the uterus itself, which are divided by the author into operations on the non-pregnant and those on the pregnant uterus. Each opera-

tive procedure is treated in a separate chapter and in a certain constant succession. At first we find the definition and synonyms of the operation in question. Next comes a short historic review of the development of this operation. The following paragraph is devoted to the technique, including the preparation of the patient, the instruments, etc., and is given more in detail according to its importance. Just this paragraph demonstrates that the author is not only familiar with the literature at large, but that he himself has contributed quite a number of surgical procedures to our therapeutical treasure. After the technique the author proceeds to a description of the results of the operation in hand, and, furthermore, of the accidents and complications either during or after the operation. At the end of each chapter the indications to the operation are discussed.

From these short remarks the reader will undoubtedly have gained the impression that the arrangement of the reading matter is an unusually clear one, and we may add that the French wording is excellent, precise and very easy to read. This book is not written for the medical student. It will be of decided benefit to the gynecologist and the numerous general surgeons who perform operations on the female genitalia. But also the general practitioner will peruse this book with great advantage. It gives exact information as to the different indications for each operation, and it will make him familiar with the therapeutical resources of the surgery of the uterus.

A Manual of Otology. By Gorham Bacon, A. B., M. D., Professor of Otology in Cornell University Medical College, New York; Aural Surgeon New York Eye and Ear Infirmary. With an introductory chapter by Clarence John Blake, M. D,, Professor of Otology in Harvard University. Third edition, revised and enlarged, with 120 illustrations and 7 plates. New York and Philadelphia: Lea Brothers & Co.

The fact that a third edition of this Manual has been issued since the first appeared in 1898, shows its popularity. The present edition has been enlarged, and a considerable number of original illustrations added. Among the new topics considered are Lumbar Puncture and the Significance of Leucocytosis. It is in every way a practical work and meets the demands of the student.

A Practical Treatise of Small-Pox. Illustrated with Colored Photographs from Life. By George Henry Fox, A. M., M. D., with collaboration of S. D. Hubbard, M. D., S. Pollitzer, M. D., and J. H. Huddleston, M. D. J. B. Lippincott Co., Philadelphia and London. 1902.

This work is practically an atlas upon this subject, and coming from that past master of dermo-photography, Dr. Fox, at once appeals to those who know his beautiful and accurate productions. Atlases usually are merely of value proportionate to the accuracy of the pictorial productions, but in this work the text is equally of value. As the author says in his preface, small-pox pictures ordinarily represent the pustular stage only, but in the present work he wishes to display the earlier stages as well as it is during that period that diagnosis is most important and difficult. Sixteen most excellent and life-like plates, representing the disease in its various and modified stages, are included in this collection.

Beitraege zur Aetiologie der Psychopathia sexualis. Von Dr. Iwan Bloch. Erster Theil. Verlag von H. R. Dohrn, Dresden. 1902.

Since the term "psychopathia sexualis" has been coined by Krafft-Ebing the opinion has gradually gained ground that sexual perversity is a disease *sui generis*, found, as a rule, or as other authorities claim, only in hereditary predis-

posed individuals. Bloch opposes this view, offering as arguments a considerable number of facts which, partly, have been unknown up to this time, and, partly, have not been recognized as regards their importance to the subject in question. Bloch is more successful than most of his predecessors who have dealt with this subject, because he approaches it, not from the prejudiced standpoint of the physician, but from the point of view of the anthropologist and ethnologist. He demonstrates that the manifold causes for all forms of sexual aberrations can be found everywhere, absolutely independent from time, location, race, culture or heredity. In his opinion, the belief of sexual perversity, or especially homosexuality, being inherited conditions, should finally be abandoned.

This book, being the first volume of an elaborate treatise on the Etiology of Psychopathia Sexualis, marks a significant advancement in our knowledge of this intricate problem.

INTERNATIONAL CLINICS, Volume II, Twelfth Series. J. B. Lippincott Company, Philadelphia. 1902.

Like its predecessors, this handsome volume contains many articles of considerable interest even though there be in them but little that is new. Prof. Ernest Finger, of Vienna, discusses the treatment of acute urethritis from a rather conservative standpoint. A valuable article is the one on treatment of simple ulcer of the stomach, by Dr. Albert Rodin, of Paris. The chief interest of the volume, however, centers in two "special articles": one by Dr. E. L. Munson, on the work and organization of the medical department of the United States army, and one by Dr. H. A. Kelly, upon the management of a modern private hospital. Both articles are well illustrated.

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